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# PROCEEDINGS

OF THE

## AMERICAN SOCIETY

OF

## CIVIL ENGINEERS

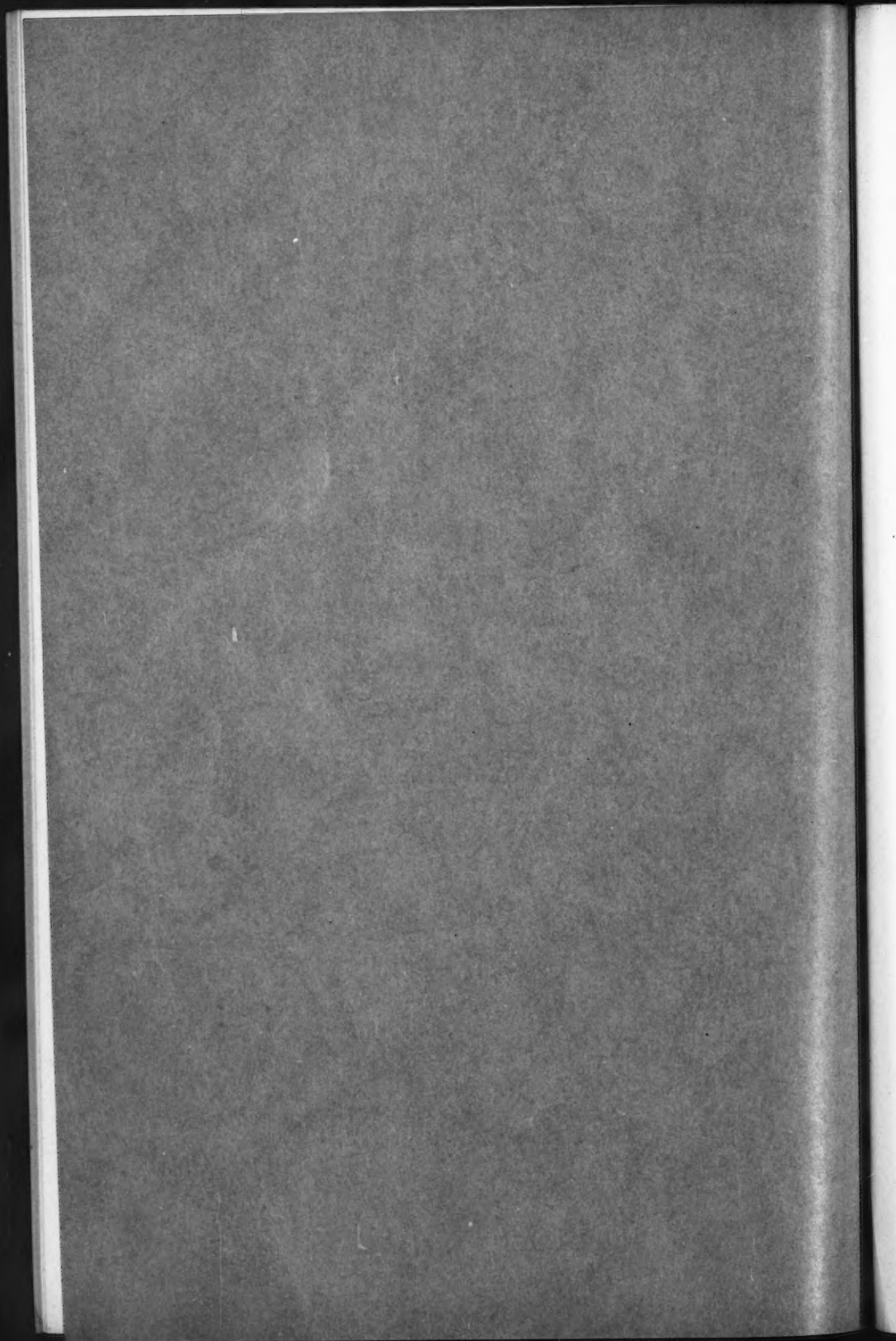
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# PROCEEDINGS

## OF THE

# AMERICAN SOCIETY

## OF

# CIVIL ENGINEERS

(INSTITUTED 1852)

VOL. XLIV—No. 8

OCTOBER, 1918

Edited by the Secretary, under the direction of the Committee on Publications.

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NEW YORK 1918

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# American Society of Civil Engineers

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Term expires January, 1919:

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GEORGE S. WEBSTER

Term expires January, 1920:

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JOHN F. COLEMAN

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Term expires January,

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## Special Committees

ON ENGINEERING EDUCATION: Desmond FitzGerald, Onward Bates, D. W. Mead.  
TO CODIFY PRESENT PRACTICE ON THE BEARING VALUE OF SOILS FOR FOUNDATIONS, ETC.: Robert A. Cummings, Edwin Duryea, E. G. Haines, Allen Hazen, James C. Meem, Walter J. Douglas.

ON THE REGULATION OF WATER RIGHTS: F. H. Newell, W. C. Hoad, John H. Lewis.  
TO REPORT ON STRESSES IN RAILROAD TRACK: A. N. Talbot, A. S. Baldwin, G. H. Brenner, John Brunner, W. J. Burton, Charles S. Churchill, W. C. Cushing, Robert W. Hunt, George W. Kittredge, Paul M. LaBach, C. G. E. Larsson, G. J. Ray, Albert F. Reichmann, H. R. Safford, F. E. Turneaure, J. E. Willoughby.

The Reading Room of the Society is open from 9 A. M. to 10 P. M. every day, except Sundays, Fourth of July, Thanksgiving Day, and Christmas Day.

HEADQUARTERS OF THE SOCIETY—33 WEST THIRTY-NINTH STREET, NEW YORK.

TELEPHONE NUMBER.....4600 Vanderbilt.  
CABLE ADDRESS....."Ceas, New York."

\* Director William R. Hill died June 16th, 1918.



# AMERICAN SOCIETY OF CIVIL ENGINEERS

INSTITUTED 1852

## PROCEEDINGS

This Society is not responsible for any statement made or opinion expressed in its publications.

### SOCIETY AFFAIRS

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### MINUTES OF MEETINGS OF THE SOCIETY

**September 18th, 1918.**—The meeting was called to order at 8.30 p. m.; Director Frederic H. Fay in the chair; Chas. Warren Hunt, Secretary; and present, also, 147 members and guests.

Maj. Charles R. Gow, U. S. A., M. Am. Soc. C. E., Constructing Quartermaster, gave a description of the building of the Boston Army Supply Base. The formwork for the columns, etc., was described by Mr. S. Ross Berkowitz, Engineer for the General Contractor, and Mr. A. A. Cohill, Chief Engineer for the Contractors, gave an account of the difficulties met in the foundation work. Each of the speakers illustrated his remarks with lantern slides.

Mr. E. E. Jackson, of the 22d Regiment of Engineers, N. G. N. Y., addressed the meeting briefly in a plea for recruits for the regiment.

The Secretary announced the election,\* by the Board of Direction, on September 10th, 1918, of 10 Members, 43 Associate Members, 1 Associate, and 17 Juniors, and the transfer of 11 Juniors to the grade of Associate Member.

The Secretary announced the following deaths:

WILLIAM WILLIAMS CREHORE, of Beaumont, Cal., elected Associate Member, April 4th, 1894; Member, September 3d, 1902; died September 13th, 1918.

EDGAR HAROLD ANNEAR, Capt., Engr. R. C., of Modesto, Cal., elected Associate Member, March 5th, 1912; died in service at Hoboken, N. J., August 28th, 1918.

\* GEORGE CORLISS SEE, of Montgomery, Ala., elected Junior, September 3d, 1907; Associate Member, September 2d, 1914; died August 28th, 1918.

Adjourned.

**October 2d, 1918.**—The meeting was called to order at 8:30 P. M.; Director Alexander C. Humphreys in the chair; Chas. Warren Hunt, Secretary; and present, also, 115 members and guests:

The minutes of the meeting of September 4th, 1918, were approved as printed in *Proceedings* for September, 1918.

Corporal Oscar Mouvet, French Legionnaire, Croix de Guerre, three citations, gave a brief address on war experiences and the Fourth Liberty Loan.

T. Kennard Thomson, M. Am. Soc. C. E., addressed the meeting on the topic: "Some Present Problems of a Consulting Engineer above the Draft Age, with Suggestions as to Preparedness for Peace as well as for War", illustrating his remarks with lantern slides.

The Secretary announced the following death:

JOHN HOWE PEYTON, of Nashville, Tenn., elected Member, June 1st, 1909; died September 14th, 1918.

The Chairman addressed the meeting briefly in reference to what is being done in the engineering colleges of the United States, particularly in connection with the Students' Army Training Corps.

Adjourned.

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\* See *Proceedings*, Am. Soc. C. E., September, 1918, p. 785.

**SOCIETY ITEMS OF INTEREST****COMMITTEE ON DEVELOPMENT**

*To the Committee on Development of the  
American Society of Civil Engineers:*

The resolutions creating the Committee, adopted by the Board of Direction, June 18th, 1918, are as follows:

"The development and application of the sciences in recent decades have caused profound changes in the social and industrial relationships of all peoples.

"The Engineer has been a leader in this progress.

"Sociological and economic conditions are in a state of flux and are leading to new alignments of the elements of society.

"These new conditions are affecting deeply the profession of engineering in its services to society, in its varied relationships to communities and nations, and in its internal organization.

"A broad survey of the functions and purposes of the American Society of Civil Engineers is needed in order that an intelligent and effective readjustment may be accomplished so that the Society may take its proper place in the larger sphere of influence and usefulness now opening to the Profession.

"Such a survey and readjustment can be accomplished successfully only with the aid of the membership throughout the country.

"Any steps toward changes in organization must lead to a revision of the Constitution of the Society, which has not been materially modified for many years, during which the Society has grown rapidly and has established 22 Local Associations of Members.

"The Constitution should be revised only after securing the views of the membership of the Society as to what its purposes and activities should be and as to the instrumentalities through which these purposes and activities should be carried out.

"Any changes in organization must take into account all the conditions above indicated, and also the relationship of the Ameri-

can Society of Civil Engineers to other engineering organizations and to the public.

**"Therefore:**

**"Resolved,** that a Committee be created to report on the purposes, field of work, scope of activity and usefulness, organization, and methods of work of the American Society of Civil Engineers, and to make recommendations concerning these matters; the Committee to consist of one member chosen by each Local Association of Members, and seven members at large appointed by the President.

**"Resolved,** that the President be instructed to select from this Committee an executive committee of not less than five nor more than nine members, and to appoint the chairman of this executive committee, who shall also be the chairman of the general committee.

**"Resolved,** that the President be instructed to prepare a precept for the general guidance of this Committee.

**"Resolved,** that this Committee be requested to present to the Board of Direction a preliminary report, not later than November 1st, 1918, so that it may be printed and distributed to the membership in advance of the Annual Meeting in January, 1919, at which meeting it will be presented for discussion."

#### PURPOSE AND SCOPE.

It is intended that the Committee on Development shall make a survey of the fields of usefulness which are or should be open to the Society, consider what functions may properly be assumed by the Society, define its purposes, formulate policies and methods of work to be recommended, and consider the needs in organization and constitution. This means taking stock and making plans. The resolutions contemplate an examination of present-day conditions and an outlook into the future. They involve considering the changing social and industrial relations of the times and the opportunities and responsibilities which devolve upon the Society and its membership. The relations of the Society to other societies and to the profession generally are also included. The outcome of the work of the Committee may be modifications in the activities, functions, and methods of work, or in the emphasis in these matters, and possibly the addition of new ones. Naturally the resolutions assume that the views of the membership of

the Society will be asked for and its aid obtained in determining what the Society's purposes and activities should be and how they may best be carried out. It is expected that the Committee will report definite recommendations in the field of its work and these recommendations may include proposals of fundamental changes which may involve amendment of the Constitution of the Society.

#### THE COMMITTEE'S FIELD.

It would be premature to outline the ground to be covered in the Committee's work; this may best be found by the Committee as its work progresses. It may serve a good purpose, however, and aid in starting effective deliberations more promptly if some expression is made of the possible content of the work. With this advantage in mind the following is suggested as representative of the field of the Committee's work:

##### 1. Relations of the Society and its membership.

- (a) The relations of the Society to its membership and to the profession of engineering.
- (b) The relations of the Society to other engineering societies and to related organizations.
- (c) The relations of the Society, its membership, and the members of the profession to public affairs, to the welfare of its members and the public, to the work of communities and nations, and to movements of the times related to industry and society.

##### 2. Organization of the Society and the Profession.

- (a) The functions of the central organization of the Society and its relation to other organizations.
- (b) The functions of the Local Associations of members (including the membership at New York) and their relations to the Society, to other societies, and to groups of organizations.
- (c) The organization of the engineering profession as a whole.

##### 3. Technical activities of the Society and its possible branch organizations.

- (a) Meetings, papers, publications and committee work.
- (b) Activities related to engineering progress and engineering problems.
- (c) Sections or divisions of the Society for specialized lines of work.



(d) Co-operation with specialized engineering societies and other organizations.

(e) Relations to other technical activities such as those of the proposed Standards Committee.

4. General activities of the Society and its possible branch organizations and co-operative organizations.

(a) Activities related to public affairs and public welfare.

(b) Activities related to the welfare of its members.

(c) Relations to organizations dealing with industrial and governmental problems.

5. Functions of the Society in relation to the younger members of the profession and to those in executive, contracting and other lines.

6. Miscellaneous needs of the organization.

7. Proposals for changes which will involve making amendments to the Constitution and formulating rules and methods of procedure.

These general topics, which are mostly self-explanatory, are necessarily interrelated in a variety of ways. The subject of the relations of the Society to its membership, the profession, the public, and the times involves questions of the purposes, functions, and organization of the Society. The organization topic relates to ways of managing activities and functioning with other organizations. The technical activities topic embraces means for carrying on the technical functions of a great engineering society, contributing to engineering knowledge, creating or developing new engineering policies, originating and bringing about constructive, progressive movements, and developing engineering practice and engineering influence. The general activities topic relates to the work of the Society in connection with public affairs and the welfare of the profession and of society. The functions of the Society with reference to the classes of members of the profession are bound up intimately with the topics already referred to. It will be noted that this outline of the field of work of the Committee is not in the form of a programme of work or order of procedure; the topics are too closely related to make it applicable to such uses.

Certain matters of policy which have been called to the attention of the Board of Direction have been referred to the Committee, such as the rewriting of the Code of Ethics of the Society, the suggested organization of American engineers abroad and the question of what policy the Society should take toward the adoption of standards, and doubtless other matters will be so referred. It seems probable that many members of the Society will have proposals which they will desire to present.

FORMULATION OF POLICIES  
AND DETERMINATION OF METHODS OF EXECUTION.

The great questions before the Committee, then, are (1) what are the functions which the American Society of Civil Engineers should assume and (2) how should they be carried out.

It goes without saying that a society should consider and determine the functions it will undertake and the working policies it will pursue. In considering these matters, it is apparent that the formulation of a proposition is a step which may aid in judging of the value of the proposal, since the mere attempt at making the statement may bring out its impracticability or its undesirability. The formulation of propositions, too, takes the mind away from indefinite generalities and to definite proposals which should have much the same significance to all readers. It will be evident, too, that some proposals must be accepted only as principles or ideals and not as working rules, and a distinction between these two classes may well be made. Definiteness of statement of course is essential in a report of a committee such as this. Doubtless the Committee will carefully consider functions and policies and their formulation.

Not less essential is the determination of the methods and ways of executing proposed functions and carrying out policies. In devising administrative plans it is well to keep in mind that organization should be left as simple and flexible as possible; elaborate or complicated organization and methods are likely to be ineffective; they are not self-propelling; and time makes changes in needs and scope of work.

In the course of its work the Committee will doubtless find it desirable to consider whether changes should not be made in the Constitution of the Society, even though, as has been found true in the past, changes in methods and new activities may be put into effect without amending the Constitution; the securing of the views of the membership of the districts on their choice for members of the Nominating Committee and the establishment of Engineering Council are examples of what has been done without modifications of the present Constitution. It seems likely, however, that the Committee will want to recommend ways in which the Constitution should be changed. Here again it is suggested that simplicity, flexibility, and breadth should be kept in mind, and that details be left for by-laws and regulations. It will be necessary to learn whether proposals for activities and methods come into conflict with the charter or conditions of incorporation of the Society. Possibly the conditions governing the incorporation may limit somewhat activities which the Committee may think desirable and possibly the Committee may conclude that modification in the articles of incorporation should be made or other steps be taken to give legal strength to their recommendations.

#### CO-OPERATION WITH COMMITTEES OF OTHER SOCIETIES.

Proposals have been made that the other national engineering societies appoint committees to take up similar work for those societies. In case such committees are formed it will be the duty of the Committee on Development of the American Society of Civil Engineers to co-operate with these committees on subjects of common interest. The Committee may also find it desirable to confer with representatives of local engineering societies over the country concerning the relations which the American Society of Civil Engineers and its Local Associations should bear to these local societies. It would appear that much may be accomplished through conferences with both national and local organizations.

#### COMMITTEE PROCEDURE.

The Committee is so large and so widely distributed over the country that its work may best be done partly by correspondence and written discussion, partly through sub-committees, and partly at meetings of the whole Committee. To ensure that adequate progress be made at the first meeting of the Committee, it is important that preliminary work be done in advance of the meeting. This may well cover matters relating to the field of work, to the organization of the Committee, and to proposals for the Committee's consideration. At the first meeting, which will be called by the chairman, the organization and programme of work may be completed and questions formulated on which it is desired to have preliminary discussions by the Society. For the preliminary report requested for November 1st, 1918, the Committee can hardly expect to do much more than record a programme of work, propose questions on which the views of the membership are desired, and submit topics for discussion. Before the time of another meeting, which possibly may well be held at about the time of the Annual Meeting of the Society in January next, progress in the work will have been made, and it may be expected that much will be accomplished at this second meeting.

In its work the Committee will doubtless make a study of the engineering society organizations of this and other countries and of professional and scientific organizations of various kinds. Information concerning the Society and its work may be obtained from the Secretary of the Society.

The method adopted for selecting the Committee gives a wide geographical distribution and an opportunity for the representation of local views. It has the advantages of giving a channel by which discussions of the problems at meetings of the Local Associations of Members may reach the Committee, and it is hoped that the Local Associations will be helpful in the work. It will be borne in mind,

of course, that the Committee is a committee of the whole Society, and it is expected that it will give careful and impartial attention to the interests of every part of the Society. The method of selection used should not be taken to mean that members of the Committee are delegates of the Local Associations of Members; and it also may be noted that the three geographical districts of the Society which do not have Local Associations of Members have much less than a proportionate representation on the Committee. Necessarily proposals for new activities and for modification of old ones must take into consideration the financial resources of the Society, and the financial side of all questions of course will receive the careful attention of the Committee. The questions before the Committee are the broad questions of policy, and personality will not enter into their discussion. With a variety of points of view and with the opportunity for wide-spread consideration of the proposals of the Committee, it may be confidently expected that the final report of the Committee will receive substantial approval from the Society.

The Board of Direction discussed the question of expense connected with the work of the Committee and informally agreed that a provision should be made. Doubtless this matter will be considered at the meeting of the Board of Direction on October 8th, 1918.

The Committee has a great opportunity to be of service to the American Society of Civil Engineers and its membership. It is hoped and believed that the work of the Committee will have significant and far-reaching results in the development of the Society and the usefulness of the profession of engineering.

Yours truly,

ARTHUR N. TALBOT,

*President.*

SEPTEMBER 14TH, 1918.

It is requested that suggestions concerning the work of this Committee be transmitted to some member of the Committee as promptly as possible.

## AMERICAN SOCIETY OF CIVIL ENGINEERS

### COMMITTEE ON DEVELOPMENT

Appointed by  
the President.

ONWARD BATES, Chicago, Ill., *Chairman*

PAUL G. BROWN, New York City

CHARLES HANSEL, New York City

CLIFFORD M. HOLLAND, Brooklyn, N. Y.

FREDERICK C. NOBLE, New York City

H. R. SAFFORD, Montreal, Que., Canada

S. EVERETT TINKHAM, Boston, Mass.

Appointed by  
the Several  
Associations  
of Members.

RICHARD L. HUMPHREY.....Philadelphia Association

J. C. RALSTON.....Spokane Association

ROBERT A. CUMMINGS.....Pittsburgh Association

GEORGE R. PUTNAM.....District of Columbia Association

BAXTER L. BROWN.....St. Louis Association

WILLIAM H. HOYT.....Duluth Association

GEORGE C. MASON.....Portland, Ore., Association

H. L. HAEHL.....San Francisco Association

GEORGE G. ANDERSON.....Southern California Association

E. B. THOMAS.....Cleveland Association

EDGAR S. NETHERCUT.....Illinois Association

W. L. DARLING.....Northwestern Association

JOHN L. HALL.....Seattle Association

ARTHUR PEW.....Atlanta Association

J. H. BRILLHART.....Texas Association

THOMAS L. WILKINSON.....Colorado Association

CHARLES J. TILDEN.....Baltimore Association

ARSÈNE PERRILLIAT.....Louisiana Association

FRANK T. DARROW.....Nebraska Association

GEORGE BUTLER.....San Diego Association

GARDNER S. WILLIAMS.....Detroit Association

It is requested that suggestions concerning the work of this  
Committee be transmitted to some member of  
the Committee as promptly as possible.



**Joint Council  
of the  
Engineering Societies of San Francisco**

**MINUTES OF THE FIRST MEETING, SEPTEMBER 4TH, 1918.**

The first meeting of the Joint Council of the Engineering Societies of San Francisco was held at the Engineers' Club on September 4th, 1918. The meeting was the outcome of several conferences, of the Secretaries of the five societies, at which were discussed the advantages to individuals and to the societies of centralized activity and co-operation. As a result of these discussions, four representatives to a joint council meeting were selected by each of five National Societies having San Francisco sections, namely, the

American Society of Civil Engineers  
American Society of Mechanical Engineers  
American Institute of Electrical Engineers  
American Institute of Mining Engineers  
American Chemical Society.

Four of the twenty representatives were out of town on September 4th; the other sixteen were in attendance. N. A. Bowers, who had called the meeting, acted as Chairman *pro tem*.

The first action was to agree that the Joint Council should be officered by an executive committee of five. Professor C. D. Marx was then elected Chairman of the Executive Committee, and took charge of the meeting. The other four members of the Executive Committee, elected by ballot, were as follows: E. O. Shreve, E. C. Jones, E. C. Hutchinson, and N. A. Bowers.

The first business was action on the suggestion that steps be taken to interest the Governor of the State in appointing an engineer as a member of the California Railroad Commission. Expressions from the Presidents of the five sections indicated unanimous agreement on this point. The action already taken by the Civil Engineers in endeavoring to secure such appointment was reviewed, and it was decided that members of the Joint Council should urge their respective societies to act on the matter as promptly as possible, and that the Joint Council itself should collect such data as would aid in showing the Governor the desirability of such an appointment. The policy approved was to urge the appointment of an engineer, without specifying any engineer in particular. It was agreed that it was eminently proper to emphasize the need of having an engineer on commissions which regularly take up engineering questions. It was believed that the agreement on this subject of our joint membership, totaling more than 1 000 engineers, would carry weight when properly presented.

Passing to the next order of business, it was agreed that the spirit of joint meetings would be improved, and that the closer relationship desired would be fostered, by the organization of a Glee Club. Mr. Bowers was instructed to endeavor to organize such a club.

To establish a fund for current expenses of the Joint Council, it was decided that each society should advance the sum of \$5. This amount was turned over to Mr. Bowers by four of the five presidents in attendance.

Mr. Jones outlined the plans of the joint meeting which the Mechanical Section purposes to hold on September 26th, 1918, and was assured of the hearty support of the four other sections.

It was decided that the Joint Council should meet for luncheon at the Engineers' Club on the second Tuesday of each month.

Adjourned.

NATHAN A. BOWERS,  
*Secretary-Treasurer.*

## ANNOUNCEMENTS

The Reading Room of the Society is open from 9 A. M. to 10 P. M., every day, except Sundays, Fourth of July, Thanksgiving Day, and Christmas Day.

## FUTURE MEETINGS

November 6th and 20th, 1918.—8:30 P. M.—Meetings will be held on these evenings as usual, and announcement of the speakers and subjects will be made later.

## LIST OF NOMINEES FOR THE OFFICES TO BE FILLED AT THE ANNUAL ELECTION, JANUARY 15th, 1919

The following list of nominees for the offices to be filled at the Annual Meeting, January 15th, 1919, received from the Nominating Committee, was presented to the Board of Direction at its meeting on October 8th, 1918. The list has already been mailed to all Corporate Members:

*For President, to serve one year:*

FAYETTE SAMUEL CURTIS, Boston, Mass.

*For Vice-Presidents, to serve two years:*

HERBERT SAMUEL CROCKER, Denver, Colo.

LEONARD METCALF, Boston, Mass.

*For Treasurer, to serve one year:*

ARTHUR SMITH TUTTLE, New York City

*For Directors, to serve three years:*

GEORGE HALLETT CLARK, New York City.....	District No. 1
JACOB STINMAN LANGTHORN, New York City.....	District No. 1
CHARLES CLEMENT ELWELL, New Haven, Conn.....	District No. 2
WILLARD BEAHAN, Cleveland, Ohio.....	District No. 6
JOHN WATSON ALVORD, Chicago, Ill.....	District No. 8
CARL EWALD GRUNSKY, San Francisco, Cal.....	District No. 13

## SEARCHES IN THE LIBRARY

In January, 1902, the Secretary was authorized to make searches in the Library, upon request, and to charge therefor the actual cost to the Society for the extra work required. Since that time many searches have been made, and bibliographies and other information on special subjects furnished.

The resulting satisfaction to the members who have made use of the resources of the Society in this manner has been expressed frequently, and leaves little doubt that if it were generally known to

engineers that such assistance could be had, many would avail themselves of it.

On October 1st, 1916, the Library of the American Society of Civil Engineers ceased to exist as such, and was merged in the Engineering Societies Library, adding 67 000 volumes to the collection, which comprises also the former libraries of the American Institute of Mining Engineers, the American Society of Mechanical Engineers, and the American Institute of Electrical Engineers, and now has a total of 133 000 volumes and pamphlets. Containing, as the Library now does, the special collections mentioned, its scope is broadened, and, as it receives an unusually large number of technical periodicals, it is well equipped to continue the service formerly rendered by the Society Library.

The Engineering Societies Library offers this service at a cost which is trifling compared with the value of the time of an engineer who personally looks up such matters, and the work can be performed quite as well, and much more quickly, by persons familiar with the Library.

In asking that such work be undertaken, members should specify clearly the subject to be covered, and whether references to general books only are desired, or whether a complete bibliography, involving search through periodical literature, is desired.

It sometimes happens that references are found which are not readily accessible to the person for whom the search is made. In that case the Library is prepared to furnish photographic copies of the material at a small price per page. This method is particularly useful when there are drawings or figures in the text, which would be very expensive to reproduce by hand.

The Library is also able to provide translations of articles in foreign languages when desired.

Requests for searches, copies, translations, etc., should be addressed to the Director, Engineering Societies Library, 29 West 39th Street, New York City, who will gladly give information concerning the charges for the various kinds of service.

#### PAPERS AND DISCUSSIONS

Members and others who take part in the oral discussions of the papers presented are urged to revise their remarks promptly. Written communications from those who cannot attend the meetings should be sent in at the earliest possible date after the issue of a paper in *Proceedings*.

All papers accepted by the Publication Committee are classified by the Committee with respect to their availability for discussion at meetings.

Papers which, from their general nature, appear to be of a character suitable for oral discussion will be published as heretofore in *Proceedings*, and set down for presentation to a future meeting of the Society, and, on these, oral discussions, as well as written communications, will be solicited.

All papers which do not come under this heading, that is to say, those which from their mathematical, or technical nature, in the opinion of the Committee, are not adapted to oral discussion, will not be scheduled for presentation to any meeting. Such papers will be published in *Proceedings* in the same manner as those which are to be presented at meetings, but written discussions only will be requested for subsequent publication in *Proceedings* and with the paper in the volumes of *Transactions*.

The Board of Direction has adopted rules for the preparation and presentation of papers, which will be found on page 35 of the Year Book for 1918.

#### LOCAL ASSOCIATIONS OF MEMBERS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS

##### **San Francisco Association, Organized 1905.**

Jerome Newman, President; Nathan A. Bowers, Secretary-Treasurer, 502 Rialto Building, San Francisco, Cal.

The San Francisco Association of Members of the American Society of Civil Engineers holds regular bi-monthly meetings, with banquet, and weekly informal luncheons. The former are held at 6 P. M., at the Palace Hotel, on the third Tuesday of February, April, June, August, October, and December, the last being the Annual Meeting of the Association.

Informal luncheons are held at noon, every Wednesday, at the Engineers' Club, 57 Post Street, where special tables are reserved for members and guests of the Association.

The by-laws of the Association provide for the extension of hospitality to any member of the Society who may be temporarily in San Francisco, and any such member will be gladly welcomed as a guest.

##### **Colorado Association, Organized 1908.**

L. R. Hinman, President; A. N. Miller, Secretary-Treasurer, 1400 West Colfax Avenue, Denver, Colo.

The meetings of the Colorado Association of Members of the American Society of Civil Engineers (Denver, Colo.) are held on the second Saturday of each month, except July and August. The hour and place of meeting are not fixed, but this information will be furnished on application to the Secretary. The meetings are usually preceded by an informal dinner. Members of the American Society of Civil Engineers will be welcomed at these meetings.

Weekly luncheons are held on Wednesday at 12.30 P. M., at Daniels and Fisher's.

Visiting members are urged to attend the meetings and luncheons.



## (Abstract of Minutes of Meeting)

**July 27th, 1918.**—A special meeting of the Association was held at the Denver Athletic Club. Owing to the absence of the President and Vice-President of the Association, the meeting was called to order by A. N. Miller, Secretary. Present, 8 members and 17 guests.

An invitation had been extended to the members of the Colorado Society of Civil Engineers to attend the meeting, and that Society was well represented.

The meeting had been called for the purpose of ascertaining the wishes of the members of the Association relative to the Preamble and Resolutions adopted by the Board of Direction on June 18th, 1918, with a view to the selection of a member to serve on the Committee on Development.

On motion, duly seconded, Mr. A. O. Ridgway was nominated and unanimously elected as Temporary Chairman, and, after taking the chair, requested the Secretary to read the Preamble and Resolutions adopted by the Board of Direction.

The Secretary also read a letter and telegram from the Southern California Association suggesting a preliminary conference of representatives of the Western Associations, to be held at Salt Lake City, Utah, on August 6th, 1918. Owing to the small number of members present, no definite action was taken relative to the proposed conference. The sentiment of those present, however, was opposed to sending a delegate.

It was moved, seconded, and carried that President L. R. Hinman be requested to appoint the member of the Association to serve on the Committee on Development.

Mr. E. T. Howson, Western Editor of *Railway Age* and Editor of *Railway Maintenance Engineer*, addressed the meeting on "Railway Operation under Federal Control", and the subject was discussed by Mr. C. W. Comstock and a number of the railroad men present.

On motion, duly seconded, a vote of thanks was extended to Mr. Howson for his address.

Adjourned.

**Atlanta Association, Organized 1912.**

B. M. Hall, President; Thomas P. Branch, Secretary-Treasurer, Georgia School of Technology, Atlanta, Ga.

**Baltimore Association, Organized 1914.**

H. G. Perring, President; Charles J. Tilden, Secretary-Treasurer, The Johns Hopkins University, Baltimore, Md.

**Cleveland Association, Organized 1914.**

Harry Fuller, President; George H. Tinker, Secretary-Treasurer, 516 Columbia Building, Cleveland, Ohio.

**Detroit Association, Organized 1916.**

T. A. Leisen, President; Clarence W. Hubbell, Secretary, 2348 Penobscot Building, Detroit, Mich.

The regular meetings of the Association are held on the second Friday of December, April, and October, the last being the Annual Meeting.

**District of Columbia Association, Organized 1916.**

A. P. Davis, President; John C. Hoyt, Secretary-Treasurer, U. S. Geological Survey, Washington, D. C.

**Duluth Association, Organized 1917.**

W. B. Patton, President; Walter G. Zimmermann, Secretary, Wolvin Building, Duluth, Minn.

The regular meetings of the Association are held at noon on the third Monday of each month (usually at the Kitchi Gammi Club), with luncheon, followed by a short business session and the reading of papers. Visiting members of the American Society of Civil Engineers can secure from the Secretary definite information relative to the meetings, at which they will be welcomed. The Annual Meeting is held on the third Monday in May.

(Abstract of Minutes of Meetings)

**August 19th, 1918.**—The meeting was called to order; President W. B. Patton in the chair; Walter G. Zimmermann, Secretary; and present, also, 18 members and 3 guests.

President Patton introduced the guests, Mr. Jesse M. Smith, Past-President of the American Society of Mechanical Engineers, who spoke briefly in regard to the desirability of unification among the Engineering Profession, and Messrs. Walter G. Swart and William H. Gallagher, President and Treasurer, respectively, of the Duluth Engineers Club, who addressed the meeting relative to the proposed plans for that Club. Mr. Woodbury, Secretary of the Club, also made a few remarks on the subject.

Mr. Byron G. Best was elected a member of the Association.

The Secretary read the Preamble and Resolutions adopted by the Cleveland Association at its meeting of July 13th, 1918, relative to the merging of the proposed Joint Association Constitutional Conference into the Committee on Development of the Society.

Mr. W. A. Clark, Chairman of the Advisory Committee to the Delegate to the Committee on Development, reported that Past-President House, who had been appointed as delegate, had been unable to accept the appointment, and that Mr. W. H. Hoyt, the alternate, had been notified of his appointment and had accepted.

Mr. W. H. Darling made a brief report regarding the meeting, at Chicago, Ill., of the Committee on Nominations for officers of the Society for the coming year.

A paper by Mr. Leland Clapper, entitled "A Few Observations and Tests on Concrete", was presented by the author, and a brief discussion of the subject followed.

Adjourned.

**September 16th, 1918.**—The meeting was called to order; Director E. R. Lewis in the chair; C. D. Christie, acting as Secretary; and present, also, 14 members.

Mr. John Carson, Chief Engineer of the Duluth Street Railway Company, presented a paper on "Street Railway Rail Joints", which brought out an interesting discussion on the subject.

Adjourned.

**Illinois Association, Organized 1916.**

A. S. Baldwin, President; Edgar S. Nethercut, Secretary-Treasurer, 1735 Monadnock Blk., Chicago, Ill.

The regular meetings of the Association are held on the second Monday of March, June, September, and December, the last being the Annual Meeting. The hour and place of meeting are not fixed, but this information will be furnished on application to the Secretary.

**Louisiana Association, Organized 1914.**

Arsene Perrilliat, President; Eugene F. Delery, Secretary, 2007 Laharpe St., New Orleans, La.

The regular meetings of the Association are held at The Cabildo, New Orleans, La., on the first Monday of January, April, July, and October.

**Nebraska Association, Organized 1917.**

George L. Campen, President; Homer V. Knouse, Secretary-Treasurer, 109 City Hall, Omaha, Nebr.

Regular meetings of the Association are held on the first Saturday of each month, except July and August, and at such places as may be appointed from time to time by the Executive Committee. The Annual Meeting is held in Lincoln, Nebr., on the second Friday in January.

An "Engineers' Round Table" is reserved daily for luncheons, at Courtenay's Restaurant, 17th and Douglas Streets, Omaha, to which all engineers are invited. Visiting members of the Society are especially urged to communicate with the Secretary when in the city.

**Northwestern Association, Organized 1914.**

P. E. Thian, President; Ralph D. Thomas, Secretary, Care, St. Anthony Falls Water Power Co. and Minneapolis Mill Co., Minneapolis, Minn.

The meetings of the Association are held bi-monthly, alternating between St. Paul and Minneapolis, on the third Friday of each month. Information as to the time and place of such meetings will be furnished on application to the Secretary.

**Philadelphia Association, Organized 1913.**

Henry H. Quimby, President; C. W. Thorn, Secretary, Crum Lynne, Pa.

The regular meetings of the Association are held at the Engineers' Club of Philadelphia, 1317 Spruce Street, on the first Monday in January, April, and October, the last being the Annual Meeting.

**Pittsburgh Association, Organized 1917.**

Richard Khuen, Jr., President; John D. Stevenson, Secretary-Treasurer, 1231 Monterey St., Pittsburgh, Pa.

The Annual Meeting of the Association is held on the first Monday in October. The time and place of other meetings are not fixed, but this information will be furnished on application to the Secretary.

**Portland, Ore., Association, Organized 1913.**

Philip H. Dater, President; C. P. Keyser, Secretary, 318 City Hall, Portland, Ore.

**St. Louis Association, Organized 1888 (Constitution Approved by Board, 1914).**

J. A. Ockerson, President; C. M. Daily, Secretary-Treasurer, 4240 Shaw Avenue, St. Louis, Mo.

The Annual Meeting of the Association for the election of officers and for the transaction of business, is held on the fourth Monday in November. Two meetings each year, for the presentation and discussion of technical papers, are held in the Auditorium of the Engineers Club of St. Louis and are open to members of the Associated Societies. Other "get-together" meetings are held regularly for dinner or luncheon on the fourth Monday of each month except July, August, and November.

**San Diego Association, Organized 1915.**

N. B. Kellogg, President; P. R. Watson, Secretary-Treasurer, *pro tem.*, County Engineer's Office, San Diego, Cal.

**Seattle Association, Organized 1913.**

A. S. Downey, President; Phil. A. Franklin, Secretary, Care, City Engineer's Office, County-City Building, Seattle, Wash.

The regular monthly meetings and luncheons of the Association are held at the Frye Hotel, 3d Avenue and Yesler Way, at 12:15 P. M., on the last Monday of each month. All members, in any grade, of the American Society of Civil Engineers are cordially invited to attend the meetings when in the vicinity.

**Southern California Association, Organized 1914.**

Louis C. Hill, President; H. W. Dennis, Secretary, Edison Building, Los Angeles, Cal.

The Southern California Association of Members of the American Society of Civil Engineers (Los Angeles, Cal.) holds regular bi-monthly meetings, with banquet, at Hotel Clark, on the second Wednesday of February, April, June, August, October, and December, the last being the Annual Meeting of the Association.

Informal luncheons are held at 12:15 P. M., every Thursday and the place of meeting may be ascertained from the Secretary.

The by-laws of the Association provide for the extension of hospitality to any member of the Society who may be temporarily in Los Angeles, and any such member will be gladly welcomed as a guest at any of the meetings or luncheons.

**Spokane Association, Organized 1914.**

Peter Mogensen, President; Charles E. Davis, Secretary, City Engineer's Office, Spokane, Wash.

The regular meetings of the Association are held on the second Friday of each month, except July and August. The hour and place of meeting are not fixed, but this information will be furnished on application to the Secretary.

Visiting members are invited to attend the meetings and luncheons.

**Texas Association, Organized 1913.**

R. C. Gowdy, President; J. H. Brillhart, Secretary, Care, Mosher Mfg. Co., Dallas, Tex.

**Utah Association, Organized 1916.**

A. B. Villadsen, President, 303 Dooly Block, Salt Lake City, Utah. The Annual Meeting of the Association is held on the first Wednesday in April. The time of other meetings is not fixed, but this information will be furnished on application to the Secretary.

**PRIVILEGES OF ENGINEERING SOCIETIES  
EXTENDED TO MEMBERS OF THE  
AMERICAN SOCIETY OF CIVIL ENGINEERS**

Members of the American Society of Civil Engineers will be welcomed by the following Engineering Societies, both to the use of their Reading Rooms, and at all meetings:

**American Institute of Electrical Engineers**, 25 West Thirty-ninth Street, New York City.

**American Institute of Mining Engineers**, 25 West Thirty-ninth Street, New York City.

**American Society of Mechanical Engineers**, 25 West Thirty-ninth Street, New York City.

**Asociación de Ingenieros y Arquitectos de Mexico**, Avenida Juarez, 12, City of Mexico, Mexico.

**Associação dos Engenheiros Civis Portuguezes**, Lisbon, Portugal.

**Australasian Institute of Mining Engineers**, Melbourne, Victoria, Australia.

**Boston Society of Civil Engineers**, 715 Tremont Temple, Boston, Mass.

**Brooklyn Engineers' Club**, 117 Remsen Street, Brooklyn, N. Y.

**Civil Engineers' Society of St. Paul**, Public Library, St. Paul, Minn.

**Cleveland Engineering Society**, Chamber of Commerce Building, Cleveland, Ohio.

**Cleveland Institute of Engineers**, Middlesbrough, England.

**Dansk Ingeniørforening**, Amaliegade 38, Copenhagen, Denmark.

**Detroit Engineering Society**, Detroit Board of Commerce Building, Detroit, Mich.

**Engineering Association of Nashville**, Commercial Club Building, Nashville, Tenn.



- Engineering Association of New South Wales**, 5 Elizabeth Street, Sydney, New South Wales, Australia.
- Engineering Institute of Canada**, 176 Mansfield Street, Montreal, Que., Canada.
- Engineering Societies Club of Hawaii**, E. F. Cykler, Secretary, Honolulu, Hawaii.
- Engineers and Architects Association of Southern California**, 405 Hosfield Bldg., Los Angeles, Cal.
- Engineers and Architects Club of Louisville**, 1412 Starks Building, Louisville, Ky.
- Engineers' Club of Baltimore**, 6 West Eager Street, Baltimore, Md.
- Engineers' Club of Kansas City**, Robert S. Beard, Secretary, Third Floor, City Hall, Kansas City, Mo.
- Engineers' Club of Minneapolis**, 17 South Sixth Street, Minneapolis, Minn.
- Engineers' Club of Philadelphia**, 1317 Spruce Street, Philadelphia, Pa.
- Engineers' Club of St. Louis**, 3817 Olive Street, St. Louis, Mo.
- Engineers' Club of Toronto**, 96 King Street, West, Toronto, Ont., Canada.
- Engineers' Club of Trenton**, Trent Theatre Building, 12 North Warren Street, Trenton, N. J.
- Engineers' Society of Northeastern Pennsylvania**, 415 Washington Avenue, Scranton, Pa.
- Engineers' Society of Pennsylvania**, 31 South Front Street, Harrisburg, Pa.
- Engineers' Society of Western Pennsylvania**, 568 Union Arcade Building, Pittsburgh, Pa.
- Florida Engineering Society**, J. R. Benton, Secretary, Gainesville, Fla.
- Institute of Marine Engineers**, The Minories, Tower Hill, London, E., England.
- Institution of Civil Engineers**, Great George Street, Westminster, S. W., London, England.
- Institution of Engineers of the River Plate**, Calle 25 de Mayo 195, Buenos Aires, Argentine Republic.
- Institution of Mechanical Engineers**, 11 Great George Street, London, S. W. 1, England.
- Institution of Naval Architects**, 5 Adelphi Terrace, London, W. C., England.
- Junior Institution of Engineers**, 39 Victoria Street, Westminster, S. W., London, England.
- Koninklijk Instituut van Ingenieurs**, The Hague, The Netherlands.
- Louisiana Engineering Society**, State Museum Building, Chartres and St. Ann Streets, New Orleans, La.

- Memphis Engineers' Club**, Memphis, Tenn.
- Midland Institute of Mining, Civil and Mechanical Engineers**, Sheffield, England.
- Montana Society of Engineers**, Butte, Mont.
- North of England Institute of Mining and Mechanical Engineers**, Newcastle-upon-Tyne, England.
- Oregon Society of Civil Engineers**, Portland, Ore.
- Pacific Northwest Society of Engineers**, 803 Central Building, Seattle, Wash.
- Rochester Engineering Society**, Rochester, N. Y.
- Sociedad Colombiana de Ingenieros**, Bogota, Colombia.
- Sociedad de Ingenieros del Peru**, Lima, Peru.
- Societe des Ingenieurs Civils de France**, 19 rue Blanche, Paris, France.
- Society of Engineers**, 17 Victoria Street, Westminster, S. W., London, England.
- Southwestern Society of Engineers**, C. E. Barglebaugh, Secretary, 703 First National Bank Building, El Paso, Tex.
- Svenska Teknologforeningen**, Brunkebergstorg 18, Stockholm, Sweden.
- Tekniske Forening**, Vestre Boulevard 18-1, Copenhagen, Denmark.
- Vermont Society of Engineers**, George A. Reed, Secretary, Montpelier, Vt.
- Western Society of Engineers**, 1735 Monadnock Block, Chicago, Ill.

**ACCESSIONS TO THE  
ENGINEERING SOCIETIES LIBRARY**

(From September 1st to October 1st, 1918)

**DONATIONS\***

The statements made in these notices are taken from the books themselves, and this Society is not responsible for them.

**MODERN NAVIGATION BY SUMNER-ST. HILAIRE METHODS:**

The First Published Work Devoted Exclusively to the Elucidation of This Subject, now so Generally Used in the U. S. Navy. By Frank Seymour Hastings. N. Y. & Lond., D. Appleton & Co., 1918. 16 + 84 pp., 6 x 4 in., cloth. 75 cents.

Presents the methods used in the Navy, in an elementary form. Contains the merchant marine method, the Sumner method and the Marcq St. Hilaire method. Intended as a supplement to the author's "Navigation—A Short Course".

**HANDBOOK OF MECHANICAL AND ELECTRICAL COST DATA;**

Giving Shipping Weights, Capacities, Outputs, and Net Prices of Machines and Apparatus, and Detailed Costs of Installation, Maintenance, Depreciation, and Operation; Together with Many Principles and Data Relating to Engineering Economics. By Halbert P. Gillette and Richard T. Dana. N. Y., McGraw-Hill Book Co., Inc.; Lond., Hill Publishing Co., Ltd., 1918. 17 + 1734 pp., illus., tab., 7 x 5 in., flexible cloth. \$6.00.

This handbook is similar in method to the authors' two previous handbooks covering costs in the field of civil engineering and can be used to supplement them. It is almost entirely devoted to purely electrical and mechanical subjects. Chapters on general economic principles, depreciation, repairs, and renewals are included.

**FRENCH-ENGLISH AND ENGLISH-FRENCH DICTIONARY OF AVIATION.**

By Robert Morris Pierce. N. Y., Languages Publishing Co. (1918). 13 + 12 pp., 7 x 4 in., paper. 60 cents.

A brief bi-lingual dictionary of words and phrases, with the pronunciation carefully indicated.

**CONCRETE STONE MANUFACTURE.**

By Harvey Whipple. Detroit, Concrete-Cement Age Publishing Co., 1918. 318 pp., 82 illus., 104 pl., 7 x 5 in., cloth. \$1.50.

A textbook for manufacturers of factory-made concrete units, based on the practice of various successful enterprises. Discusses plant layout, operation, methods, materials, finishing, building regulations, tests, etc.

**THE METALLURGIST'S AND CHEMIST'S HANDBOOK:**

A Reference Book of Tables and Data for the Student and Metallurgist. Compiled by Donald M. Liddell. 2d ed., revised and enlarged. N. Y., McGraw-Hill Book Co., Inc.; Lond., Hill Pub. Co., Ltd., 1918. 65 pp., illus., tab., 7 x 4 in., flexible cloth. \$4.00.

A collection of tables and condensed data selected to include those most necessary to the chemist and metallurgist. Additions to this edition bear chiefly on war activities, such as alloys and toxic gases. A short chapter on organic chemistry is also included.

\* Unless otherwise specified, books in this list have been donated by the publishers.

**700 FRENCH TERMS FOR AMERICAN FIELD ARTILLERYMEN.**

By Edward Bliss Reed. With a Foreword by Lt.-Col. Robert M. Danford. 2d edition. New Haven, Yale Univ. Press; Lond., Humphrey Milford, Oxford Univ. Press, 1918. 66 pp., cloth, 5 x 4 in. 50 cents.

A brief vest-pocket vocabulary of the French words most frequently used in field artillery.

**SIR WILLIAM RAMSAY:**

Memorials of His Life and Work. By Sir William A. Tilden. Lond., Macmillan & Co., Ltd., 1918. 16 + 311 pp., 4 pl., 4 por., 9 x 6 in., cloth. \$4.00.

The author has written an interesting, readable account of Sir William Ramsay's career, which does justice to his scientific work and gives at the same time a pleasant picture of the man himself. He has had the advantage of Lady Ramsay's co-operation, and has made use of the letters preserved by her and other members of the family.

**STUDIES ON SOLUTION IN ITS RELATION TO LIGHT ABSORPTION.**

Ductivity, Viscosity, and Hydrolysis: A Report upon a Number of Experimental Investigations Carried Out in the Laboratory of the Late Professor Harry C. Jones. Compiled by Paul B. Davis. Wash., Carnegie Inst., 1918. 144 pp., 25 illus., 116 tab., 10 x 7 in., paper. \$2.00.

The report represents the various lines of investigation pursued under Professor Jones' direction during 1915-16, all of which have some bearing on the conceptions of solution in general and of solution in particular, which have been developed by that laboratory.

**GUIDE TO THE USE OF UNITED STATES GOVERNMENT PUBLICATIONS.**

By Edith E. Clarke. Boston, The Boston Book Co., 1918. 308 pp., 9 x 6 in., cloth. \$2.50.

A guide to the history, use, cataloguing, and classification of United States Government publications. Written primarily for librarians and library workers, it is broad enough in scope to serve as a laboratory manual for all who use the Government publications inside libraries and out. Contains four bibliographies dealing with different phases of the subject.

**A MANUAL OF ENGINEERING DRAWING**

For Students and Draftsmen. By Thomas E. French. N. Y., McGraw-Hill Book Co., Inc.; Lond., Hill Publishing Co., Ltd., 1918. 12 + 329 pp., 556 illus., 9 x 6 in., cloth. \$2.50.

A method of instruction, based on the conception of drawing as a language, with varied forms of expression, grammar, and style. New chapters on lettering, screw threads, bolts and fastenings, and structural drawing have been added; the chapters on working drawings and architectural drawing have been enlarged, and the text generally has been revised.

**REINFORCED CONCRETE CONSTRUCTION: PART I;**

With Examples Worked out in Detail for All Types of Beams, Floors, and Columns. By M. T. Cantell. 2d edition. Lond., E. & F. N. Spon, Ltd.; N. Y., Spon & Chamberlain, 1918. 160 pp., 75 illus., 1 pl., 7 x 5 in., cloth. (Gift of the Author.)

The chief object in this work is to endeavor to meet the requirements of students, as well as others who have practical experience but only an elementary knowledge of mathematics and mechanics, for a simple practical treatment of the subject. Part I contains the principles, general information, and examples of designing required by the majority of students and practical men. This edition is revised to comply as far as possible with American and Canadian, as well as British, conditions and practice.

# SUMMARY OF SOCIETY MEMBERSHIP SERVING IN THE ARMIES AND NAVIES OF THE UNITED STATES AND ITS ALLIES

October 9th, 1918

AMERICAN ARMY		AMERICAN NAVY	
Major-Generals. . . . .	8	Rear-Admirals. . . . .	4
Brig.-Generals. . . . .	14	Captains. . . . .	4
Colonels. . . . .	42	Commanders. . . . .	9
Lt.-Colonels. . . . .	45	Lt.-Commanders. . . . .	15
Majors. . . . .	222	Civil Engineers (rank not given). . . . .	14
Captains. . . . .	510	Lieutenants. . . . .	23
First Lieutenants. . . . .	256	Lieutenants (Junior Grade). . . . .	11
Second Lieutenants. . . . .	76	Ensigns. . . . .	10
Regimental Sergeants. . . . .	1	Asst. Paymaster (rank not given). . . . .	1
Master Engineers. . . . .	7	Chf. Machinist's Mate. . . . .	1
Master Gunners. . . . .	2	Chf. Carpenter's Mate. . . . .	1
Sergeants. . . . .	15	Marine. . . . .	1
Corporals. . . . .	7	Miscellaneous. . . . .	1
Privates. . . . .	41	Total. . . . .	95
Students, Training Camps. . . . .	22		
Miscellaneous. . . . .	6		
Total. . . . .	1274		
BRITISH ARMY		BRITISH NAVY	
Brig.-Generals. . . . .	1	Lieutenant. . . . .	1
Lt.-Colonels. . . . .	5	Total in Navies. . . . .	96
Majors. . . . .	8		
Captains. . . . .	17	SUMMARY FOR NAVIES	
Lieutenants. . . . .	17	Rear-Admirals. . . . .	4
Second Lieutenants. . . . .	6	Captains. . . . .	4
Corporals. . . . .	1	Commanders. . . . .	9
Privates. . . . .	1	Lt.-Commanders. . . . .	15
Miscellaneous. . . . .	1	Civil Engineers (rank not given). . . . .	14
Total. . . . .	57	Lieutenants. . . . .	24
		Lieutenants (Junior Grade). . . . .	11
		Ensigns. . . . .	10
		Asst. Paymaster (rank not given). . . . .	1
		Chf. Machinist's Mate. . . . .	1
		Chf. Carpenter's Mate. . . . .	1
		Marine. . . . .	1
		Miscellaneous. . . . .	1
		Total. . . . .	96
FRENCH ARMY			
Commandant (rank not given). . . . .	1		
Captains. . . . .	2		
Sous-Lieutenant. . . . .	1		
Aspirant. . . . .	1		
Miscellaneous. . . . .	2		
Total. . . . .	7		
ITALIAN ARMY			
Colonel. . . . .	1		
Total in Armies. . . . .	1339		
SUMMARY FOR ARMIES			
Major-Generals. . . . .	8		
Brig.-Generals. . . . .	15		
Colonels. . . . .	43		
Lt.-Colonels. . . . .	50		
Majors. . . . .	230		
Commandant (rank not given). . . . .	1		
Captains. . . . .	529		
Lieutenants. . . . .	273		
Second Lieutenants. . . . .	83		
Regimental Sergeants. . . . .	1		
Master Engineers. . . . .	7		
Master Gunners. . . . .	2		
Sergeants. . . . .	15		
Corporals. . . . .	8		
Privates. . . . .	42		
Students, Training Camps. . . . .	23		
Miscellaneous. . . . .	9		
Total. . . . .	1339		
RECAPITULATION			
Total in Army. . . . .	1339		
Total in Navy. . . . .	96		
Total on Roll of Honor. . . . .	1435		
Died in Service. . . . .	7		
Grand Total. . . . .	1442		



## ROLL OF HONOR

A List of Members of the Society Who are Serving in the Army or Navy of the United States or Any of Its Allies.\*

**VANSITTART, GEORGE EDWARD.** Maj., 13th Battery, Canadian Field Artillery, 2d Canadian Div.; wounded in action (France); died May 14th, 1916.

**AGNEW, AUGUSTUS WATEROUS.** Capt., 3d Canadian Pioneers; wounded in action (France); died September 17th, 1916.

**HAGUE, WILLIAM.** 1st Lieut., Engr. R. C., 116th Engrs.; died in service (France), January 1st, 1918.

**GOODFELLOW, JAMES GORDON.** Maj., Royal Engrs.; killed in action (France), March 23d, 1918.

**BUCKWALTER, DANIEL HARRIS.** Capt., Engr. R. C.; killed in action (France), May 12th, 1918.

**LINDBERY, CHARLES ARTHUR.** Capt., Engr. R. C.; died in service (Camp Lee, Va.), May 27th, 1918.

**ANNEAR, EDGAR HAROLD.** Capt., Engr. R. C.; died in service (Hoboken, N. J.), August 28th, 1918.

**Abbot, Frederic V.** Brig-Gen., Engineers, U. S. A.

**Abbot, Frederick William.** Lt.-Col., British Army.

**Acher, A. H.** Maj., Engineers, U. S. A.; Acting Lt.-Col., 4th Engrs., A. E. F., France.

**Acker, Robert L.** Corporal, Headquarters Co., 7th F. A., A. E. F., France.

**Ackerman, Alexander S.** Capt., Engineers, U. S. A., A. E. F., France.

**Ackerman, Arthur P.** 1st Lieut., Engineers, U. S. A., 517th Engrs.

**Adams, Arthur.** Maj., Ordnance, U. S. A.

**Adams, Edward M.** Maj., U. S. A.

**Adams, Milton Jewell.** Capt., Engineers, U. S. A., Co. C, 114th Engrs.

**Adams, Raymond E.** Capt., Quartermaster Corps, U. S. A.

**Adams, Walter Francis.** Sergeant, 23d Engrs., A. E. F., France.

**Adams, William H.** Capt., Quartermaster Corps, U. S. A.

**Albert, Frederick W.** Lt.-Col., Engineers, U. S. A., 33d Engrs.

**Alden, Herbert C.** 1st Lieut., Coast Artillery, U. S. A.

**Alden, Langford Taylor.** Aspirant, 7<sup>e</sup> Batterie, 51st Regt. d'Artillerie, Secteur Postal No. 82 (French Army); Care, Morgan, Harjes Cie., Boulevard Haussmann, Paris, France.

**Alderman, Ernest S.** 2d Lieut., Quartermaster Corps, U. S. A.

\* This list is made up from replies to a circular forwarded to members of the Society, and others, and is probably neither accurate nor complete. It is requested that the attention of the Secretary be called to any omissions or inaccuracies in order that they may be corrected in subsequent lists.

- Alexander, E. Porter.** 1st Lieut., Engineers, U. S. A., 509th Engrs., A. P. O. 701, A. E. F., France.
- Alexander, Kay.** Maj., 2d in Command, 12th Canadian Ry. Troops, B. E. F., France.
- Allen, Franklin R.** Capt., Engineers, U. S. A.
- Allen, Herschel Heathcote.** Capt., Engineers, U. S. A.
- Allen, Ralph B.** 1st Lieut., Engineers, U. S. A., Co. B, 25th Engrs., A. E. F., France.
- Allen, Walter Henry.** Maj., Engineers, U. S. A.
- Allen, Walter Hinds.** Civ. Engr. U. S. N. (rank of Lt.-Commander).
- Allison, L. M.** 2d Lieut., Infantry, U. S. A.
- Allison, William F.** Maj., Engineers, U. S. A., A. E. F., France.
- Altman, Frank S.** Lieut., Engineers, U. S. A., 23d Engrs.
- Altstaetter, F. W.** Col., Engineers, U. S. A.
- Anders, Frank L.** Capt., Quartermaster Corps, U. S. A.
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- Andrews, Carl B.** Capt., Engineers, U. S. A.
- Andrews, J. H. M.** Maj., Ordnance, U. S. A.
- Angas, Robert M.** 1st Lieut., U. S. A., 106th Engrs.
- Applegarth, Gault.** Capt., Engineers, U. S. A., 23d Engrs.
- Arderly, Edward Dahl.** Col., Engineers, U. S. A.; Chf. Gas Officer, 2d Army Corps, A. E. F., France.
- Armitage, George W.** Capt., Quartermaster Corps, U. S. A.
- Arms, Leo M.** Lieut., Engineers, U. S. A., Co. F, 2d Engrs., A. E. F., France.
- Armstrong, Charles Johnstone.** Brig.-Gen.; Chf. Engr., H. Q., Canadian Army Corps, B. E. F., France.
- Armstrong, Harry A.** 6th Co., E. O. T. C., Camp A. A. Humphreys, Va.
- Armstrong, Merwin.** Capt., Engineers, U. S. A., Co. D, 105th Engrs., A. E. F., France.
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- Ashley, Carl.** Capt., Engineers, U. S. A., U. S. Military P. O. 702, A. E. F., France.
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- Asserson, Henry Raymond. Maj., Engineers, U. S. A., C. E. L. O. C., A. E. F., France.
- Atterbury, W. W. Brig.-Gen.; Director-General of Transportation, A. E. F., France.
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- Baker, George L. 1st Lieut., Infantry, U. S. A.
- Baker, H. S. Lt.-Col., Engineers, U. S. A., 111th Engrs.
- Baker, Shirley. Capt., Engineers, U. S. A., Co. B, 23d Engrs.
- Balch, William H. Capt., Engineers, U. S. A., A. P. O. 712, A. E. F., France.
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- Barber, Justin F. Sergeant, Co. M, 23d Engrs., A. E. F., France.
- Barber, Norman N. Capt., Engineers, U. S. A., 16th Engrs., A. E. F., France.
- Barclay, A. J. 1st Lieut., Engineers, U. S. A.
- Barnard, Archer F. 1st Lieut., Engineers, U. S. A. (*Unassigned*).
- Barney, Samuel E. Maj., Engineers, U. S. A. (*Unassigned*).
- Bartholomew, B. W. Lieut., Engineers, U. S. A., 301st Engrs.
- Bascom, George R. Maj., Sanitary Corps, U. S. A.
- Bassett, Herbert H. Maj., Engineers, U. S. A.
- Battie, H. S. 1st Lieut., Engineers, U. S. A.
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- Beach, Lansing H. Col., Engineers, U. S. A.
- Beale, Allan S. Lieut., U. S. Air Service (Aeronautics).
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- Bebb, Edward C. Capt., Engineers, U. S. A.

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- Bennett, John W. F. Maj., Quartermaster Corps, U. S. A.
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- Bensel, J. A. Maj., Engineers, U. S. A.
- Benson, Orville. Maj., Engineers, U. S. A., A. E. F., France.
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- Bowen, Edward Withers.** Capt., Infantry, U. S. A., 2d Inf. Replacement Regt.
- Bowie, William.** Maj., Engineers, U. S. A.
- Bowlby, Henry L.** Maj., U. S. A., 43d Engrs.
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- Brown, Clarence C.** 1st Lieut., Co. E, 12th Engrs. (Ry.), A. E. F., France.
- Brown, Earl I.** Col., U. S. A., 317th Engrs.
- Brown, Elbert C.** Capt., Engineers, U. S. A.
- Brown, Elliot C.** Lt.-Commander, U. S. N. R.
- Brown, H. Whittemore.** 2d Lieut., Engineers, U. S. A., A. E. F., France.
- Brown, Harry Madara.** 1st Lieut., Infantry, U. S. A. (*Unassigned*).
- Brown, Levant R.** Capt., Engineers, U. S. A.
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- Bucher, Harold F.** Lieut., Engineers, U. S. A., 2d Engrs., A. E. F., France.
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- Buck, Walter Van.** Capt., Engineers, U. S. A., 23d Engrs.
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- Burgess, Harry.** Col., U. S. A., 16th Engrs. (Ry.), A. E. F., France.
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- Busse, Franz A.** Capt., Engineers, U. S. A. (*Unattached*), A. E. F., France.
- Butler, John Soule.** Maj., Engineers, U. S. A.
- Butler, Millard A.** Col., Quartermaster Corps, U. S. A.
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- Carter, E. Kemper.** Capt., Engineers, U. S. A., Co. C, 518th Engrs.
- Case, Charles A.** 1st Lieut., Engineers, U. S. A., 314th Engrs.
- Cate, Charles Edward.** Capt., U. S. A., 45th Engrs.
- Caton, John H., 3d.** Capt., Engineers, U. S. A., Co. F, 33d Engrs.
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- Cerny, John W.** Maj., Quartermaster Corps, U. S. A.
- Chadwick, Maurice F.** Private, 24th Tr. Bn., F. A. R. D., Camp Jackson, S. C.
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- Chambers, Frank T.** Civ. Engr., U. S. N. (rank of Captain).
- Chandler, William E.** Master Gunner, Headquarters Co., 55th Artillery, C. A. C., A. P. O. 723, A. E. F., France.
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- Chapman, S. A.** 1st Lieut., U. S. A., Co. C, 42d Engrs.
- Chappell, Claude E.** Capt., Co. 5, E. O. T. C., Camp Humphreys, Va.
- Charnley, Walter.** 1st Lieut., Engineers, U. S. A.
- Chase, Clifford E.** Capt., Engineers, U. S. A., Co. A, 4th Engrs.
- Cheney, Sherwood A.** Col., U. S. A., 110th Engrs., A. E. F., France.
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- Churchill, Robert C.** Lieut., Co. D, 25th Engrs., A. E. F., France.
- Claffin, William B.** Capt., Engineers, U. S. A., Headquarters, 39th Div.
- Claiborne, Herbert A., Jr.** 2d Lieut., Signal Corps, U. S. A. (*Unsigned*).
- Clark, Ernest A.** Capt., Engineers, U. S. A.
- Clark, Howard F.** Capt., Engineers, U. S. A., A. E. F., France.

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S 1, B. E. F., France.  
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- Cornish, Lorenzo D.** Capt., Engineers, U. S. A., Co. C, 15th Engrs. (Ry.), A. E. F., France.
- Corp, Henry W.** 5th Co., E. O. T. S., Camp Humphreys, Va.
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- Covert, John F.** 1st Lieut., Engineers, U. S. A.
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Shafer, J. C. F. Capt., Coast Artillery, U. S. A., A. E. F., France.  
Shankland, Ralph Graham. 1st Lieut., Engineers, U. S. A.  
Shaw, Arthur Lassell. Capt., Engineers, U. S. A., 301st Engrs.  
Shaw, Arthur M. Maj., Engineers, U. S. A., Mech. Repair Unit  
No. 305.  
Shaw, Franklin Dickinson. Capt., Engineers, U. S. A.  
Shearer, D. McD. Capt., Engineers, U. S. A., 604th Engrs.  
Sheley, Horace W. Capt., Engineers, U. S. A.  
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Sherman, Edward C. Lt.-Commander, Civ. Engr. Corps, U. S. N.  
R. F.  
Sibert, William L. Maj.-Gen., U. S. A.  
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- Silvernail, Alfred Kimberly. Capt., Quartermaster Corps, Constr. Div., U. S. A.
- Sjovall, Arvid H. Capt., Quartermaster Corps, Utilities Dept., U. S. A.
- Skelly, J. W. Capt.; Supply Officer, 12th Engrs. (Ry.), A. E. F., France.
- Sleight, Reuben Benjamin. Lieut., Signal Corps, U. S. A.
- Sleppy, K. B. Capt., 4th U. S. Engrs.
- Sliker, Hiram J. Lt.-Col., 21st Engrs. (Light Ry.), A. E. F., France.
- Sloan, William Glenn. 1st Lieut., Engineers, U. S. A. (*Unassigned*).
- Sloan, William Griffith. Maj., Engineers, U. S. A.
- Small, James H., Jr. Maj., Quartermaster Corps, U. S. A.
- Smallman, R. A. Capt., Co. F, 25th Engrs., A. E. F., France.
- Smead, R. C. Maj., Engineers, U. S. A. (*Unassigned*).
- Smillie, Ralph. Ensign, U. S. N., U. S. S. *Massachusetts*.
- Smith, Albert. Maj., U. S. A., 2d Bn., 309th Engrs.
- Smith, Alexander Crawford, Jr. 1st Lieut., Engineers, U. S. A., Truck Co. No. 10, 23d Engrs., A. E. F., France.
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- Smith, Chester Alexander. Capt., Sanitary Corps, U. S. A.
- Smith, Chester K. Capt., Engineers, U. S. A., Care, Director of Constr. and Forestry, Headquarters, S. O. S., A. E. F., France.
- Smith, Claire Howland Wallace. 1st Lieut., Engineers, U. S. A. (*Unassigned*), A. E. F., France.
- Smith, Clarence Urling. Capt., Co. E, 107th Engrs., A. E. F., France.
- Smith, Clarke Stull. Col., Engineers, U. S. A., Headquarters, 311th Engrs.
- Smith, Earl Audie. 1st Lieut., Engineers, U. S. A.
- Smith, Edward King. 2d Lieut., Signal Corps, U. S. A.
- Smith, Francis M. Capt., Engineers, U. S. A., Headquarters, 59th Engrs. (Ry.), U. S. A. P. O. 708, A. E. F., France.
- Smith, Layton Fontaine. Lieut., U. S. N. R. F.
- Smith, Maxwell W. Capt., Engineers, U. S. A., Co. F, 308th Engrs., A. E. F., France.
- Smith, Merritt H. Col., 1st N. Y. Field Artillery, N. G. U. S.
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- Snodgrass, W. T.** Sergeant, Co. C, 28th Engrs., A. E. F., France.
- Snook, Thomas E., Jr.** 1st Lieut., Engineers, U. S. A., Co. B, 306th Engrs.
- Snyder, Frederic Antes.** Col., U. S. A., 103d Engrs.
- Snyder, George Duncan.** Capt., U. S. A., 102d Engrs.
- Snyder, Hubert Earl.** Capt., Engineers, U. S. A.
- Soest, Hugo C.** 1st Lieut., Engineers, U. S. A., Co. A, 25th Engrs., A. E. F., France.
- Solomon, G. R.** Maj., Engineers, U. S. A.
- Sourwine, J. A.** Capt., Engineers, U. S. A.
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- Spencer, Herbert.** Capt., Engineers, U. S. A., Co. H, 23d Engrs., A. E. F., France.
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- Sprague, H. M.** 1st Lieut., Engineers, U. S. A., Care, G. P. A., Labor Bureau, A. P. O. 702, A. E. F., France.
- Stafford, Fred D.** Capt., Engineers, U. S. A., 105th Engrs., A. E. F., France.
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- Stayton, Edward M.** Maj., U. S. A., 110th Engrs.
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- Stearns, Ralph H.** Lieut. (Junior Grade), U. S. N. R. F.
- Steep, James B.** Capt., Engineers, U. S. A.
- Steese, James Gordon.** Lt.-Col., Engineers, U. S. A.
- Steeves, C. McN.** Lieut., 9th Field Co., Canadian Engrs., B. E. F., France.
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- Stewart, John. Maj., Engineers, U. S. A.
- Stewart, John T. Maj., Engineers, U. S. A.
- Stickle, H. W. Lt.-Col., U. S. A. (*Retired*).
- Stillwell, Howard L. 2d Lieut., Quartermaster Corps, U. S. A.
- Stineman, Norman M. Capt., Engineers, U. S. A., 33d Engrs.
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- Storey, Franklin S. 1st Lieut., Engineers, U. S. A., A. E. F., France.
- Stowe, H. D. Capt., Engineers, U. S. A.
- Strachan, Joseph J. Asst. Civ. Engr., U. S. N. (rank of Lieut. (Junior Grade)).
- Strachan, Norman F. Private, 23d Engrs.
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- Strehan, George E. 2d Lieut., Field Artillery, U. S. A., Battery E, 351st F. A.
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- Sutton, Frank. Maj., Engineers, U. S. A., 29th Engrs.
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- Swartz, Leon. Master Engr., 15th U. S. Engrs., A. E. F., France.
- Sweeney, Harry C. Capt., Quartermaster Corps, U. S. A.
- Sweetser, C. H. Capt., Engineers, U. S. A., Co. A, 43d Engrs., A. E. F., France.
- Sweetser, E. O. Capt., Engineers, U. S. A. (*Unattached*), A. E. F., France.
- Swett, Everett H. Capt., Engineers, U. S. A.
- Sykes, George. Capt., Engineers, U. S. A., A. E. F., France.
- Symonds, G. R. B. Capt., Engineers, U. S. A., Co. A, 605th Engrs.
- Tainter, F. S. Maj., Engineers, U. S. A.
- Tate, R. L. 1st Lieut., Engineers, U. S. A., 303d Engrs.

- Tay, S. W.** Lieut., U. S. N. N. V., U. S. S. *Wenonah*.  
**Taylor, Arthur.** 1st Lieut., Engineers, U. S. A.  
**Taylor, Edwin A.** Maj., Engineers, U. S. A., 526th Engrs., A. E. F., France.  
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**Taylor, Nelson.** Lieut., U. S. N., U. S. S. *Bridgeport*.  
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**Taylor, Seneca V.** Capt., Coast Artillery, U. S. A.  
**Taylor, William T.** Capt., Royal Flying Corps, B. E. F., France.  
**Taylor, Wyllys H.** Capt., Engineers, U. S. A., 306th Engrs.  
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**Thomas, William Michael.** Capt., Engineers, U. S. A.  
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**Thomsen, S. L.** Capt., Engineers, U. S. A., Co. A, 57th Engrs., A. E. F., France.  
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**Thurber, Clinton D.** Civ. Engr., U. S. N. (rank of Lt.-Commander).  
**Thurston, Eugene T.** Capt., Engineers, U. S. A.  
**Tilden, Charles Joseph.** Capt., Engineers, U. S. A. (*Unassigned*).  
**Tinkham, Ralph R.** Capt., Engineers, U. S. A.  
**Tinsley, R. B.** Capt., Engineers, U. S. A., Co. C, 605th Engrs., A. E. F., France.  
**Tirrell, Charles Edwards.** Signal Corps, Aviation Section (Non-Flying), U. S. A.  
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**Topping, Perry.** Capt., Engineers, U. S. A., 5th Engrs.  
**Torrance, William M.** Capt., Engineers, U. S. A.

- Townsend, C. McD. Col., Engineers, U. S. A., 12th Engrs. (Ry.),  
A. E. F., France.
- Toyne, John Wilson. Capt., Quartermaster Corps, U. S. A.
- Tracy, C. C. Capt., Coast Artillery, U. S. A.
- Tracy, Herbert Herman. 1st Lieut., Engineers, U. S. A., Engr.  
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- Travers-Ewell, Andrew. Care, American Consul, Para, Brazil.
- Trimpi, Allan Littell. 1st Lieut., U. S. A., 104th Engrs.
- Trout, Alexander Linn. Capt., Engineers, U. S. A. (*Unassigned*),  
A. E. F., France.
- True, Albert O. Capt., Engineers, U. S. A.
- Trueblood, P. McG. Lieut., U. S. N. R. F.
- Tucker, H. F. Ensign, U. S. N. R. F.
- Turley, Jay. Capt., Engineers, U. S. A., Care, Eng. Purchasing  
Officer, P. O. No. 702, A. E. F., France.
- Turner, Daniel Norman. 2d Lieut., Engineers, U. S. A., 304th Engrs.
- Turner, Nathaniel Parker. Capt., Co. B, 111th Engrs., A. E. F.,  
France.
- Tuska, Gustave R. Maj., Engineers, U. S. A.
- Tyler, Richard G. Capt., Quartermaster Corps, U. S. A.
- Tyson, William C. Capt., Engineers, U. S. A., Co. No. 2, Camp  
Custer Replacement Draft, A. E. F., France.
- Uhler, W. D. Lt.-Col., Quartermaster Corps, U. S. A.
- Van Amburgh, Thomas A. 1st Lieut., Quartermaster Corps, U. S. A.
- Van Buren, Maurice Pelham. Capt., Engineers, U. S. A., 602d  
Engrs.
- Vandemoer, N. C. Capt., Engineers, U. S. A.
- Vanderhoof, Arnold H. Lieut., U. S. N. (*Retired*), Radio Div.,  
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- Vandervoort, B. F. Capt., Engineers, U. S. A.
- Vandevanter, Elliott. Capt., Engineers, U. S. A., Co. D, 503d Engrs.,  
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- Van Ness, R. A. Lieut., Engineers, U. S. A.
- Van Pelt, Sutton. Capt., Engineers, U. S. A., 110th Engrs.
- Van Suetendael, Achille O. Capt., Engineers, U. S. A.
- Van Zile, Harry Lee. Maj., Engineers, U. S. A., A. E. F., France.
- Vaughan, Henry F. Capt., Sanitary Corps, U. S. A.
- Verrill, George E. Maj., Engineers, U. S. A.
- Vincent, W. H. 1st Lieut., Engineers, U. S. A.
- Vogleson, J. A. Maj., Sanitary Corps, U. S. A.
- Volk, Wendell Douglas. 1st Lieut., Engineers, U. S. A., Co. E, 20th  
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- Wadsworth, George R. Maj., Signal Corps, U. S. A.
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- Waite, Clement F. 1st Lieut., Engineers, U. S. A.
- Waite, H. M. Lt.-Col., Railroad Transportation Corps, U. S. A., Care, Railroad Transportation Corps, A. E. F., France.
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- Walker, Meriwether Lewis. Col., Engineers, U. S. A., G. H. Q., A. E. F., France.
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- Wallace, David A. Capt., Engineers, U. S. A., Headquarters, Director General of Transportation, A. P. O. 717, A. E. F., France.
- Wallace, Harold U. Maj., Engineers, U. S. A.
- Waller, Alexander C. 1st Lieut., Engineers, U. S. A., 22d Engrs., A. E. F., France.
- Waller, Percy. Capt., Engineers, U. S. A.
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- Walton, H. B. Capt., Engineers, U. S. A., 312th Engrs.
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- Ware, Norton. Capt., Engineers, U. S. A.
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- Waring, C. T. Maj., Signal Corps, U. S. A.
- Warner, Elwin S. Capt., Engineers, U. S. A., Co. B, 301st Engrs.
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- Warren, Philip R. Maj., Royal Engrs., P. C. E., A. P. O. S. 10, B. E. F., France.
- Watkins, Guy A. Capt., Engineers, U. S. A.
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- Watson, George L. Capt., U. S. A., Co. B, 30th Engrs.
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- Whiteaker, Robert O. Capt., U. S. A., 132d F. A.
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- Williamson, Lee H.** 2d Lieut., Engineers, U. S. A., Co. A, 55th Engrs.
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- Woodle, Bernon Tisdale.** Capt., Engineers, U. S. A.
- Woodruff, Glenn B.** 1st Lieut., Engineers, U. S. A.
- Woolworth, W. H.** Capt., U. S. A., Headquarters, 2d Brigade, 1st Div., A. E. F., France.
- Wooten, William P.** Maj., Engineers, U. S. A.
- Wright, John Bertram.** Capt., Engineers, U. S. A.
- Wrightson, William D.** Maj., Sanitary Corps, U. S. A.; Chf. of San. Corps, U. S. A.
- Yates, Sheldon S.** Field Artillery Officers' Training Camp, Camp Zachary Taylor, Ky.
- Yeo, W. H. W.** Capt., Engineers, U. S. A.
- Yereance, Alex. W.** 1st Lieut., Co. F, 305th Engrs., A. E. F., France.
- Yost, Howard McC.** Capt., Engineers, U. S. A.
- Young, Frederick C.** Capt., Engineers, U. S. A.; Adjt., 114th Engrs.
- Young, George S.** Capt., Engineers, U. S. A.
- Young, Samuel M.** Capt., Engineers, U. S. A.
- Zinn, George A.** Col., Engineers, U. S. A.

## MEMBERSHIP

(From September 6th to October 3d, 1918)

## ADDITIONS

MEMBERS		Date of Membership.
BILES, GEORGE HERBERT. Acting Chf. Engr., State Highway Dept., Harrisburg, Pa..	Assoc. M. M.	Aug. 31, 1915 Sept. 10, 1918
CARPENTER, FREDERICK W. Lock Box 307, Cornwall, N. Y.		May 13, 1918
CLINTON, DELMAR SMITH. Maj., Engineers, U. S. A., Constr. Div., 7th and B Sts., S. W., Washington, D. C.....	Assoc. M. M.	Jan. 15, 1917 Sept. 10, 1918
EAGER, VERNON MILTON. Capt., Quartermas- ters Corps, U. S. A.; Asst. Superv. Const. Q. M., Terminals and Warehouses, Const. Branch of Constr. Div., War Dept., 7th and B Sts., Room 2-318, Bldg. C, Washington, D. C.....	Assoc. M. M.	June 24, 1914 Sept. 10, 1918
GLENN, RUSSELL VERSTILLE. Senior Highway Engr., U. S. Dept. of Agriculture, Office of Public Roads and Rural Eng., 501 Wheat Bldg., Fort Worth, Tex.....	Assoc. M. M.	June 3, 1915 Sept. 10, 1918
GOEDECKE, WILLIAM. Chf. Draftsman and Chf. Engr., Guar- antee Constr. Co., 140 Cedar St., Room 801, New York City.....		Sept. 10, 1918
HILL, PHILIP BROCKETT. (Lund & Hill), 527 Southern Trust Bldg., Little Rock, Ark.	Assoc. M. M.	April 30, 1912 Sept. 10, 1918
KLEINSCHMIDT, HENRY SCHWING. Capt., U. S. A.; Address, 1308 Walker Bank Bldg., Salt Lake City, Utah.....	Jun. Assoc. M. M.	Mar. 1, 1904 Dec. 1, 1908 April 17, 1918
MOORE, CHARLES REA. Chf. Engr., Spokane Val. & North. Ry.; Chf. Engr., Am. Min- eral Production Co., Valley, Wash.....	Assoc. M. M.	Sept. 3, 1913 Sept. 10, 1918
NEWHALL, HENRY LESTER. Prin. Asst. to Chf. Engr., Water-Works Impvt., 102 East Mill St., Akron, Ohio.....	Assoc. M. M.	Feb. 28, 1911 Sept. 10, 1918
PASSEL, HOWARD FAY. Chf. Engr., C, I. & West. R. R., 115 Drexel Ave., Indianapolis, Ind.....		Sept. 10, 1918
PERRY, JOHN PRINCE HAZEN. Mgr., Contr. Dept., Turner Constr. Co., 244 Madison Ave., New York City.....	Jun. Assoc. M. M.	Nov. 1, 1904 May 28, 1912 Sept. 10, 1918
RIGHTOR, FRED ELMER. Dist. Mgr., Texas Bitulithic Co., Austin, Tex.....	Assoc. M. M.	May 31, 1910 Sept. 10, 1918
SMITH, BERNHARD ALEXANDER. Civ. and Hydr. Engr., 352 Collins St., Melbourne, Victoria, Australia.....		June 18, 1918
STUHRMAN, EDWARD AHLERT. Chf. Engr. of Design and Constr., for Arthur Tufts, 41 South Prado, Atlanta, Ga.....		Sept. 10, 1918

## MEMBERS (Continued)

Date of  
Membership.

TAYLOR, ERNEST WILLIAM. Engr. in Sales Dept., The Brown Hoisting Machinery Co., 1094 East 99th St., Cleveland, Ohio.....		Sept. 10, 1918
THOMAS, WILLIAM EDWARD. Capt., Quartermaster Corps, U. S. A., Constr. Div., Camp Sevier, S. C.; Care, Commercial Bank, Charlotte, N. C.....	Assoc. M. M.	July 1, 1909 Sept. 10, 1918
TILLSON, BENJAMIN FRANKLIN. Head. of Min. Dept., New Jersey Zinc Co., Franklin, N. J.....		Sept. 10, 1918
TORKELSON, MARTIN WILHELM. Bridge Engr., Wisconsin Highway Comm., 2141 West Lawn Ave., Madison, Wis.....	Assoc. M. M.	Sept. 12, 1916 Sept. 10, 1918
TRIMBLE, ROSWELL DELMEGE. Cons. Engr., Winston & Co.; Res., 900 West Franklin St., Richmond, Va.....		Sept. 10, 1918
VOYNOW, CONSTANTINE BORISSON, Asst. Engr.-of-Way, Phil. Rap. Trans. Co., 820 Dauphin St., Philadelphia, Pa.....	Assoc. M. M.	Sept. 7, 1904 Sept. 10, 1918
WEST, WADE CLARENCE. Capt., Engineers, U. S. A., Co. 5, E. O. T. S., Camp Humphreys, Va.....	Assoc. M. M.	Sept. 3, 1913 June 19, 1918
WILLARD, ERNST VICTOR. Acting Chf. Engr., Minnesota State Drainage Comm., Old Capitol Bldg., St. Paul, Minn.....	Assoc. M. M.	May 6, 1914 Sept. 10, 1918

## ASSOCIATE MEMBERS

ACKHART, ANDREW LEWIS. Engr., Eastern Concrete Steel Co., 402 D. S. Morgan Bldg., Buffalo, N. Y.....	Jun. Assoc. M.	Mar. 4, 1913 Sept. 10, 1918
ALLEN, KENNETH BLISS. 606 United Brethren Bldg., Dayton, Ohio.....		Sept. 10, 1918
ARMSTRONG, CHARLES CHAMBERS. Draftsman and Asst. Secy., Passaic Val. Sewerage Commrs., South River, N. J.....		Sept. 10, 1918
BARZAGHI, ARTHUR JEROME. Eng. Dept., Turner Constr. Co., Stamford, Conn.....	Jun. Assoc. M.	Dec. 2, 1914 Sept. 10, 1918
BURTON, ANSEL MORRIS. Care, Standard Oil Co., Neodesha, Kans.....		Mar. 12, 1918
BYRNE, THOMAS SNEED. Capt., Ordnance, U. S. A., U. S. Nitrate Plant No. 3, Toledo, Ohio.....		Sept. 10, 1918
CHAPMAN, STANLEY ALBA. 1st Lieut., Co. C, 42d Engrs.; Address, 527 East Washington St., Pasadena, Cal....		May 13, 1918
COLLIER, NELSON MARTIN. Fairbury, Nebr.....		April 16, 1918
COLLINS, MERTON CLYDE. 1st Lieut., Co. 5, E. O. T. S., Camp Humphreys, Va.; Address, 201 South Ogden St., Denver, Colo.....	Jun. Assoc. M.	Sept. 3, 1913 June 18, 1918



ASSOCIATE MEMBERS (*Continued*)

		Date of Membership.
CRONMEYER, JOHN FREDERICK WILLIAM. Care, G. A. Spalding, 130 North Fairmont Ave., Pittsburgh, Pa.		Sept. 10, 1918
FITZMAURICE, EDMUND JOSEPH. Engr., Ballinger & Perrot, 5821 Pine St., Philadelphia, Pa.		Mar. 12, 1918
FULTON, CLIFFORD ROBERT. Engr. (Grant & Fulton), 2032 Worthington Ave., Lincoln, Nebr.		Sept. 10, 1918
GREEN, NATHANIEL WARREN. Care, A. Bentley & Sons Co., Jacksonville, Fla.	Jun. Assoc. M.	Dec. 5, 1911 Sept. 10, 1918
GREGORY, WHITNEY IRWIN. Chf. Draftsman, U. S. Engr. Office, P. O. Box 72, Louisville, Ky.	Jun. Assoc. M.	Sept. 3, 1913 Mar. 12, 1918
HALL, ROY FRANK. Div. Engr., New York State Highway Comm., Utica, N. Y.		Sept. 10, 1918
HARRINGTON, JOHN ALLAN. Engr., Edward E. Gillen Co., 733 Wells Bldg., Milwaukee, Wis.		Sept. 10, 1918
HARVEY, JAMES CAROTHERS. Dist. Engr. with James A. French, State Highway Engr., Los Lunas, N. Mex.		Sept. 10, 1918
HAWKINS, GEORGE LOCKWOOD. Pres., Almion Eng. & Contr. Co., 644 Westfield Ave., Elizabeth, N. J.		April 16, 1918
HOERNER, CHARLES GOTTLÖB, JR. Asst. Engr., New York Board of Water Supply, Phoenicia, N. Y.		Sept. 10, 1918
HOLLEY, HAROLD FISKE. Dist. Engr., State Highway Dept., Carson City, Nev.	Jun. Assoc. M.	Aug. 31, 1915 Sept. 10, 1918
HORNE, RALPH WARREN. Asst. Engr., Fay, Spofford & Thorndike, 90 Ashland St., Malden, Mass.		Sept. 10, 1918
HYMAN, HARRY ABE. Pres., The Waterproofing & Constr. Co., Inc., 50 East 42d St., New York City		Sept. 10, 1918
IRVING, JAMES NORMAN. Asst. Engr., Quinton, Code & Hill, R. F. D. No. 3, Riverside, Cal.		Sept. 10, 1918
KEHOE, ALFRED LAWRENCE, JR. In Chg., Designing Dept., H. G. Balcom, 10 East 47th St. (Res., 605 West 182d St.), New York City		Sept. 10, 1918
KILLION, LOUIS JOHN. Engr., Monks & Johnson, 1825 Wylie St., Philadelphia, Pa.		Sept. 10, 1918
KING, THOMAS RICHARD. 1st Lieut., 116th Engrs., A. P. O. 733, Am. Exp. Forces, France (Res., 500 South Orange St., Glendale, Cal.)	Jun. Assoc. M.	April 16, 1918 Sept. 10, 1918
KRAUS, ARTHUR. Leading Draftsman and Chf. Estimator, Public Works Dept., Brooklyn Navy Yard, 508 East 89th St., New York City	Jun. Assoc. M.	Mar. 5, 1912 Sept. 10, 1918
MCNAUGHTON, WILLIAM CARLTON. Acting Res. Engr., Rapid Transit Subway Constr. Co., 52 Ogden Ave., West Englewood, N. J.		Sept. 10, 1918

ASSOCIATE MEMBERS (*Continued*)

	Date of Membership.
MCPIKE, MARTIN JOHN. Superv. Draftsman, Public Works Div., U. S. Navy Yard, 122 Sterling Pl., Brooklyn, N. Y.....	Sept. 10, 1918
PIERCE, CHAUNCEY ARTHUR. Chf. Engr., H. D. Best Co., 52 Vanderbilt Ave., New York City (Res., 808 Park Pl., Brooklyn, N. Y.).....	Sept. 10, 1918
PLEW, WILLIAM REECE. Prof. of Civ. and Architectural Eng., Univ. of Montana, 1004 South Central Ave., Bozeman, Mont.....	Sept. 10, 1918
QUINNEY, ELWIN HARRIS. Deputy State Engr., Pierre, S. Dak.....	Sept. 10, 1918
REED, CHARLES ALLEY. Office Engr., Eng. Dept., City of Oakland, 4326 Montgomery St., Oakland, Cal.....	Sept. 10, 1918
ROLLO, RALPH ALEXANDER. City Engr., 2121 Division St., Murphysboro, Ill.....	Sept. 10, 1918
ROSS, LLOYD MCCREIGHT. 202 North Brevard St., Charlotte, N. C.....	Sept. 10, 1918
RYDER, JOHN MARVIN. Archt., Ground and Bldgs. Dept., Gen. Elec. Co., 16 Swan St., Schenectady, N. Y.....	Sept. 10, 1918
SPRIGG, CARROLL CRAWFORD. Pres., Gen. Contr. & Eng. Co., 29 Broadway, New York City.....	Sept. 10, 1918
SULLIVAN, EDWIN QUINBY. Supt., Div. II, California High- way Comm., Box 341, Red Bluff, Cal.....	Sept. 10, 1918
SWECKER, CLEOPHUS. Div. Engr., State Road Comm., 5th Div., Century, W. Va.....	Sept. 10, 1918
VESTAL, WILLIAM BAXTER. Secy. and Gen. Mgr., Clarkson Mfg. Co., Spokane, Wash.....	June 18, 1918
WEFEL, WALTHER JOHN. Chf. Draftsman and Designer, Ernest M. George, 1900 Euclid Bldg., Cleveland, Ohio.	Sept. 10, 1918
WITTEN, DONALD. Cons. Engr. (Wood, Elston & Witten), 207 Wright Laboratory Bldg., Tulsa, Okla.....	Sept. 10, 1918
WOLTMANN, JESSE JOHN. 521 Scottwood Apartments, Scottwood Ave., Toledo, Ohio.....	Sept. 10, 1918
WOODSON, JAMES BAKER. Div. Engr., California Highway Comm., 911 Echo Ave., Fresno, Cal.....	April 16, 1918

## ASSOCIATES

DAYBILL, ALFRED. Pres., Miller, Daybill & Co., Ave. B and 18th St., New York City.....	Sept. 10, 1918
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## JUNIORS

BARR, INGLE. Aeronautic Draftsman, Hull Div., Naval Air Station, Box 229, Pensacola, Fla.....	Sept. 10, 1918
BROWN, LEO FRANCIS. 316 East 29th St., Brooklyn, N. Y.	Sept. 10, 1918

JUNIORS ( <i>Continued</i> )		Date of Membership.
BRUTON, PHILIP GILSTRAP. 2d Lieut., Constr. Div., Aviation Section, Signal Corps, U. S. A., Vancouver Barracks, Wash.....		Sept. 10, 1918
CRADDOCK, FRANKLIN HARPER. Care, J. B. Ferguson, Superv. Engr., Camp Eustis, Va.....		Sept. 10, 1918
HARDECKER, JOHN FRANCIS. Asst. Chf. Draftsman, U. S. Naval Aircraft Factory, Philadelphia, Pa.....		Sept. 10, 1918
PICKEN, MARSHALL WOOLLEY. 2588 Creston Ave., New York City.....		Sept. 10, 1918
SHIPMAN, WILLIAM DAVIS. Draftsman, Penn. Lines W. of Pitts., 200 Belva St., Avalon, Pa.....		Sept. 10, 1918
WILSON, NORMAN KENNETH. 2d Lieut., 473d Aero Squadron, Care, U. S. Air Service, 35 Eaton Pl., London, England; Address 6233 Ingleside Ave., Chicago, Ill..		Sept. 10, 1918

## CHANGES OF ADDRESS

## HONORARY MEMBERS

MACKENZIE, ALEXANDER. Retired Chf. of Engrs. and Maj.-Gen., U. S. A., 1858 Kalorama Rd., Washington, D. C.

## MEMBERS

ALLEN, KENNETH. Dist. Engr., Bureau of Industrial Housing and Transportation, 613 G St., N. W., Washington, D. C.

ANDERS, FRANK LA FAYETTE. Capt., Quartermaster Corps, U. S. A., Constr. Div., Camp Dodge, Iowa; Cons. Engr.; City Engr., 1205 Sixth St., South, Fargo, N. Dak.

ATWOOD, THOMAS CLARK. Dist. Plant Engr., U. S. Shipping Board, Emergency Fleet Corporation, 3d Dist., Lexington Bldg., Baltimore, Md.

BATTLE, JOHN BEALLE. Asst. Engr., U. S. Engr. Office, Mobile, Ala.

BELCHER, WALLACE EDWARD. 11 East Greenwood Ave., Lansdowne, Pa.

BELDEN, HARRY AUSTIN. Superv. Engr., Care, Const. Quartermaster, Camp Hancock, Augusta, Ga.

BENZENBERG, GEORGE HENRY. (*Past-President*). Cons. Engr. (*Retired*), 1018 Wells Bldg., Milwaukee, Wis.

BILLINGS, ASA WHITE KENNEY. Lt.-Commander, Civ. Engr., U. S. N. R. F., U. S. Naval Forces (Aviation), London, England, *via* Postmaster, New York City.

BISSELL, CLINTON SPENCER. 4902 Florence Ave., Philadelphia, Pa.

BLOOM, J. GEORGE. Supt., Louisiana Div., C., R. I. & P. Ry., El Dorado, Ark.

BONTECOU, DANIEL. Care, Inland Water Ways Comm., 3111 N St., N. W., Washington, D. C.

BOWDITCH, JOHN HENRY. Pilot Engr., B. & O. R. R., Room 621, Sloan Bldg., Cleveland, Ohio.

## MEMBERS (Continued)

- BOWEN, CHARLES KENNARD. Capt., Engineers, U. S. A., Camp Humphreys, Va.; Address, Route A, Box No. 39, Burbank, Cal.
- BOWIE, WILLIAM. Maj., Engineers, U. S. A., Bldg. C, 6th and B Sts., S. W., Room 4-112 (Res., 1733 Church St., N. W.), Washington, D. C.
- BOYDEN, HARRY CHESTER. Maj., Engineers, U. S. A.; Dept. Engr., Headquarters, Central Dept., 230 East Ohio St., Room 700, Chicago, Ill.
- BOYLE, JAMES MURRAY. Maj., Ordnance, U. S. A., Cosmos Club, Washington, D. C.
- BULL, GEORGE MAIRS. Civ. Engr., U. S. N. R. F., Public Works Dept., Navy Yard, Philadelphia, Pa.
- BUSH, ADAM LEONARD. Constr. Engr., Concrete Ship Section, Div. of Steel Ship Constr., Emergency Fleet Corporation (Res., 5319 Baltimore Ave.), Philadelphia, Pa.
- CAMERON, HARRY FRANK. Lt.-Col., U. S. A., 209th Engrs., Camp Sheridan, Ala.
- CAPLES, MARTIN JOSEPH. Vice-Pres., Seaboard A. L. Ry., 104 Woodlawn Rd., Roland Park, Baltimore, Md.
- CARR, OSSIAN ELMER. City Mgr., 112 Kensington Pl., Springfield, Ohio.
- CHAMBERLIN, CHESTER HARVEY. 1400 Cooper St., Fort Worth, Tex.
- COLLIER, WILLIAM NEVILLE. Capt., Engineers, U. S. A., 1st Co., E. O. T. S., Camp Humphreys, Va.
- CRAGIN, CHARLES CALHOUN. Maj., Engineers, U. S. A., 18th Engrs. (Ry.), P. O. Box 705, Am. Exp. Forces, France.
- CROCKARD, FRANK HEARNE. Care, Woodward Iron Co., Woodward, Ala.
- CROCKER, HERBERT SAMUEL. Lt.-Col., Quartermaster Corps, U. S. A.; Const. Q. M., Brooklyn Army Supply Base, 59th St. and 1st Ave., Brooklyn, N. Y.; Cons. Engr., 1333 Fillmore St., Denver, Colo.
- CURD, WILLIAM CANTRELL. Contr. Engr., William Graver Tank Works of Chicago, Ill., 1412 Steger Bldg., Chicago, Ill.
- DAVIS, CHARLES STRATTON. Senior Structural Engr., Interstate Commerce Comm., Chattanooga, Tenn.
- DENT, ELLIOTT JOHNSTONE. Col., Engineers, U. S. A., 26th Engrs., A. P. O. 765, Am. Exp. Forces, France.
- FETHERSTON, JOHN TURNEY. Constr. Mgr., Air Nitrates Corporation, Muscle Shoals, Sheffield, Ala.
- GARRETT, ROBERT PEEL. Capt., Ordnance, U. S. A., 2729 Eleventh St., N. W., Washington, D. C.; Vice-Pres. and Treas., Missouri Bridge & Iron Co., 1000 Fullerton Bldg., St. Louis, Mo.
- GODDARD, WILLIAM BECK, JR. Designing Engr. and Supt. of Constr., U. S. Explosive Plant C, 47 Percy St., Flushing, N. Y.
- GRANT, KENNETH CROTHERS. Capt., Quartermaster Corps, U. S. A., Concord Apartments No. 54, New Hampshire and Oregon Aves., N. W., Washington, D. C.
- GRIEST, MAURICE. 1st Lieut., Engineers, U. S. A., Camp Humphreys, Va.

MEMBERS (*Continued*)

- HARDMAN, ROY CORDIS. Supt., Municipal Eng. Div., Southern Dist., Box 544, Ancon, Canal Zone, Panama.
- HARING, ALEXANDER. Prof. of Bridge and Railway Eng., New York Univ.; Attorney and Counselor at Law, 2259 Loring Pl., University Heights, New York City.
- HARTUNG, PAUL AUGUST. 324 Bryant Bldg., Kansas City, Mo.
- HODGE, HENRY WILSON. Col., Railroad Transportation Corps, U. S. A.; Mgr. of Roads, G. H. Q., Am. Exp. Forces, France.
- HOHL, LEONHARD JOHN. Cons. Engr., 1834 Delaware St., Berkeley, Cal.
- HOOD, RICHARD HADEN. 38 Park Row, New York City.
- HOUSTON, GAVIN NELSON. Irrig. Officer, Dept., Interior, Calgary, Alberta, Canada.
- HOWARD, FREDERICK BILLINGS. Govt. Insp. on Aeroplane Work, 135 Hogarth Ave., Detroit, Mich.
- JAPP, Sir HENRY. Care, British War Mission, 120 Broadway, New York City.
- JESSEN, NILS HERMAN BAASHUUS. Care, Braden Copper Co., Rancagua, via Valparaiso, Chile.
- KNIGHT, RICHARD WARREN. Export Sales Mgr., Austin Co., 217 Broadway, New York City.
- KNOX, SAMUEL LIPPINCOTT GRISWOLD. Scientific Attaché, American Embassy, Rome, Italy; Care, Renwick B. Knox, Duluth Superior Dredging Co., Duluth, Minn.
- LAHMER, JOHN ALOYSIUS. Dist. Engr., Mo. Pac. Ry., Room 209, Union Station, Little Rock, Ark.
- LEA, SAMUEL HILL. Box 478, Portsmouth, Va.
- LEE, DAVID READ. Care, New York State Canals, Weigh Lock Bldg. (Res., 411 Elliott St.), Syracuse, N. Y.
- LEMEN, WILLIAM CASWELL SMITH. Maj., Engineers, U. S. A., Headquarters, Port of Embarkation, Lincoln Highway and Passaic River, Kearny, N. J.
- LENTILHON, EUGENE. Cons. Engr., Brookside Farm, Bay Shore, N. Y.
- LYON, LÉON ÉLIE. Maj., Railroad Transportation Corps, U. S. A., Am. Exp. Forces, France.
- MACARTNEY, MORTON. Maj., Quartermaster Corps, U. S. A.; Officer in Chg., Utilities, Camp A. A. Humphreys, Va.
- MALTBY, FRANK BIERCE. Maj., Engineers, U. S. A., Am. Exp. Forces, France (Res., 19 Dutton St., Ridley Park, Pa.)
- MOGENSEN, PETER. Civ. and Hydr. Engr., 717 South Cedar St., Spokane, Wash.
- MORROW, JAY JOHNSON. Brig.-Gen., U. S. A., Am. Exp. Forces, France.
- MYERS, EDMUND TROWBRIDGE DANA, JR. Maj., Ordnance, U. S. A., Nitrate Div., Washington, D. C.
- NAUMAN, GEORGE. Asst. to Chf. Engr., P. R. R., 319 Westinghouse Bldg., Pittsburgh, Pa.

MEMBERS (*Continued*)

- NICHOLSON, MAURY. Chf. Engr., Chickasaw Land & Utilities Co., Box 1389, Mobile, Ala.
- OBER, RALPH HADLOCK. Capt., Engineers, U. S. A., Co. 3, E. O. T. S., Camp Humphreys, Va.; Address, Care, Richard B. Ober, Tono, Wash.
- OLMSTED, ASHBEL EDWARD. 92 Prospect St., East Hartford, Conn.
- PEASE, FLOYD ODELL. Box 281, Goodrich St. Station, Akron, Ohio.
- POWELL, ARCHIBALD OLIN. Lt.-Col., Engineers, U. S. A., Office, Chf. of Engrs., Washington, D. C.
- RANDOLPH, RICHARD WOOD. Asst., South Florida Farms Co., Moore Haven, Fla.
- REDDING, JOSEPH HERBERT. Care, P. R. R., Altoona, Pa.
- RICH, EDWARD DUNBAR. Maj., Sanitary Corps, U. S. A., Headquarters, 11th Bn., M. O. T. C., Camp Greenleaf, Chickamauga Park, Ga.; State San. Engr., Lansing, Mich.
- RICHE, CHARLES SWIFT. Col., Engineers, U. S. A., Balboa Heights, Canal Zone, Panama.
- RUST, CHARLES HENRY. National Club, Bay St., Toronto, Ont., Canada.
- SAFFORD, HARRY ROBINSON. Room 1205, Burlington Bldg., Chicago, Ill.
- SEABURY, GEORGE TILLEY. Maj., Quartermaster Corps, U. S. A., Constr. Div., United Service Club, Dupont Circle, Washington, D. C.
- SEWELL, JOHN STEPHEN. Col., Engineers, U. S. A., Commanding Base Section No. 1, Am. Exp. Forces, France.
- SHAW, SUMNER FARNHAM. Superv. Engr., Picric Acid Plant, Care, Maj. William Blanchard, Brunswick, Ga.
- SHERMAN, EDWARD CLAYTON. Lt.-Commander, Civ. Engr. Corps, U. S. N. R. F.; Project Mgr., Bureau of Yards and Docks, Washington, D. C.
- SPALDING, WALTER JAMES. Care, American Commercial Attaché, Lima, Peru.
- SYRETT, WALTER SUTTON. Pres., Walter S. Syrett & Co., 72 West Adams St., Room 725, Chicago, Ill.
- TAYLOR, EDWIN ALEXANDER. Maj., Engineers, U. S. A. 526th Engrs., Am. Exp. Forces, France; Address, Box 261, Uxbridge, Mass.
- TILLSON, GEORGE WILLIAM. 313 South Catharine St., La Grange, Ill.
- TINSLEY, ROBERT BRUCE. Capt., Engineers, U. S. A., Co. C, 605th Engrs., Am. Exp. Forces, France.
- TRELEASE, FRANK JOHNSON. Care, Ford, Bacon & Davis, 921 Canal St., New Orleans, La.
- TRUEHEART, EDWARD GARLAND. 736 East Guenther St., San Antonio, Tex.
- TURNER, NATHANIEL PARKER. Capt., Co. B, 111th Engrs., 36th Div., Am. Exp. Forces, France.
- TUSKA, GUSTAVE ROBITSCHER. Maj., Engineers, U. S. A., Staff of Director-General of Military Rys., 7th and B Sts., N. W., Washington, D. C.; Cons. Engr., 68 William St., New York City.
- WATERS, WILLIAM LAWRENCE. Cons. Engr., 50 Broad St., New York City (Res., Glen Cove, N. Y.).



MEMBERS (*Continued*)

- WHITNEY, HERBERT ANGELL. Care, Shaw-Batcher Pipe Co., Shipbuilding Dept., South San Francisco (Res., 1815 San Antonio Ave., Alameda), Cal.
- WILCOX, ERNEST HARDWICK. Capt., Engineers, U. S. A., 543d Engrs., Am. Exp. Forces, France.
- WILD, HERBERT JOSEPH. Maj., Engineers, U. S. A., Camp Humphreys, Accontink, Va.
- WILDER, CLIFTON WHITE. Elec. Engr., Public Service Comm., First Dist., State of New York, 49 Lafayette St., New York City.
- WILGUS, HERBERT SEDGWICK. Maj., Engineers, U. S. A., Camp Humphreys, Va.

## ASSOCIATE MEMBERS

- ABBOTT, CARL PRESCOTT. Supt. of Constr., Proctor & Gamble, Mariners Harbor (Res., 39 Oakwood Ave., White Plains,) N. Y.
- ABBOTT, WALTER RUSSELL. Constr. Engr., with Keith O. Guthrie, 465 Rose Lane, Lexington, Ky.
- ADAMS, WILLIAM HENRY. Capt., Quartermaster Corps, U. S. A.; Asst. to Officer in Chg. of Constr. Div., 943 Longfellow St., N. W., Washington, D. C.
- ALLEN, LUCIUS EPHRAIM. Cons. Engr., Nitrate Div., Ordnance Dept., U. S. A., Muscle Shoals, Ala.
- ALLISON, LEONIDAS METCALFE. 2d Lieut., Infantry, U. S. A., Co. E, 2d Inf. Replacement Regt., Camp Gordon, Ga.
- ARMSTRONG, HARRY ARTHUR. 6th Co., E. O. T. C., Camp A. A. Humphreys, Va.
- AMSTRONG, MERWIN. Capt., Engineers, U. S. A., Co. D, 105th Engrs., Am. Exp. Forces, France; Res. Fayetteville, N. Y.
- ASHTON, RAYMOND. 2d Lieut., Air Service, U. S. A., Am. Exp. Forces, France.
- BABBITT, HAROLD EATON. Capt., Engineers, U. S. A., A. P. O. 757, Am. Exp. Forces, France.
- BARNARD, ARCHER FORTESCUE. 1st Lieut., Engineers, U. S. A. (*Unassigned*); Asst. Engr., Leeds & Barnard, 1105 Central Bldg., Los Angeles, Cal.
- BELL, HARRY WALTON. Capt., 5th Bn., 22d Engrs., Am. Exp. Forces, France.
- BELLOWS, SIDNEY RAYMOND. Care, Raymond Concrete Pile Co., 140 Cedar St., New York City.
- BLAAUW, GEERT. Care, Turners Falls Power & Elec. Co., Greenfield, Mass.
- BLATT, MAX. 79 West Monroe St., Room 1000, Chicago, Ill.
- BLIGHT, ARTHUR FREDERICK. Asst. Hydr. Engr., Southern California Edison Co., Box 646, Station C, Los Angeles, Cal.
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## DEATHS

ANNEAR, EDGAR HAROLD. Elected Associate Member, March 5th, 1912; died in service (Hoboken, N. J.), August 28th, 1918.

CREHORE, WILLIAM WILLIAMS. Elected Associate Member, April 4th, 1894; Member, September 3d, 1902; died September 13th, 1918.

PEYTON, JOHN HOWE. Elected Member, June 1st, 1909; died September 14th, 1918.

SEE, GEORGE CORLISS. Elected Junior, September 3d, 1907; Associate Member, September 2d, 1914; died August 28th, 1918.

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(September 1st to September 21st, 1918)

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### LIST OF PUBLICATIONS

In the subjoined list of articles, references are given by the number prefixed to each journal in this list:

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| (2) <i>Journal</i> , Engrs. Club of Phila., Philadelphia, Pa.                               | (43) <i>Annales des Ponts et Chaussées</i> , Paris, France.                             |
| (3) <i>Journal</i> , Franklin Inst., Philadelphia, Pa., 50c.                                | (45) <i>Coal Age</i> , New York City, 10c.  |
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| (8) <i>Stevens Indicator</i> , Hoboken, N. J., 50c.   | (55) <i>Transactions</i> , Am. Soc. M. E., New York City, \$10.                         |
| (9) <i>Industrial Management</i> , New York City, 25c.                                      | (56) <i>Transactions</i> , Am. Inst. Min. Engrs., New York City, \$6.                   |
| (11) <i>Engineering</i> (London), W. H. Wiley, 432 Fourth Ave., New York City, 25c.         | (57) <i>Colliery Guardian</i> , London, England, 5d.                                    |
| (12) <i>The Engineer</i> (London), International News Co., New York City, 35c.              | (58) <i>Proceedings</i> , Engrs.' Soc. W. Pa., 2511 Oliver Bldg., Pittsburgh, Pa., 50c. |
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| (21) <i>Railway Engineer</i> , London, England, 1s. 2d.                                     | (66) <i>Gas Journal</i> , London, England, 6d.  |
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